

SITE PLAN FOR  
PROJECT HERCULES

TAX MAP #63 A 80  
APPOMATTOX COUNTY, VA 24522  
460 PRECINCT  
WRECK ISLAND VOTING DISTRICT

APPROVED

Stormwater Management Plan

Commonwealth of Virginia  
DEQ Water Division  
Northern Regional Office

Plan Reviewer: 

Date: 12/18/2025

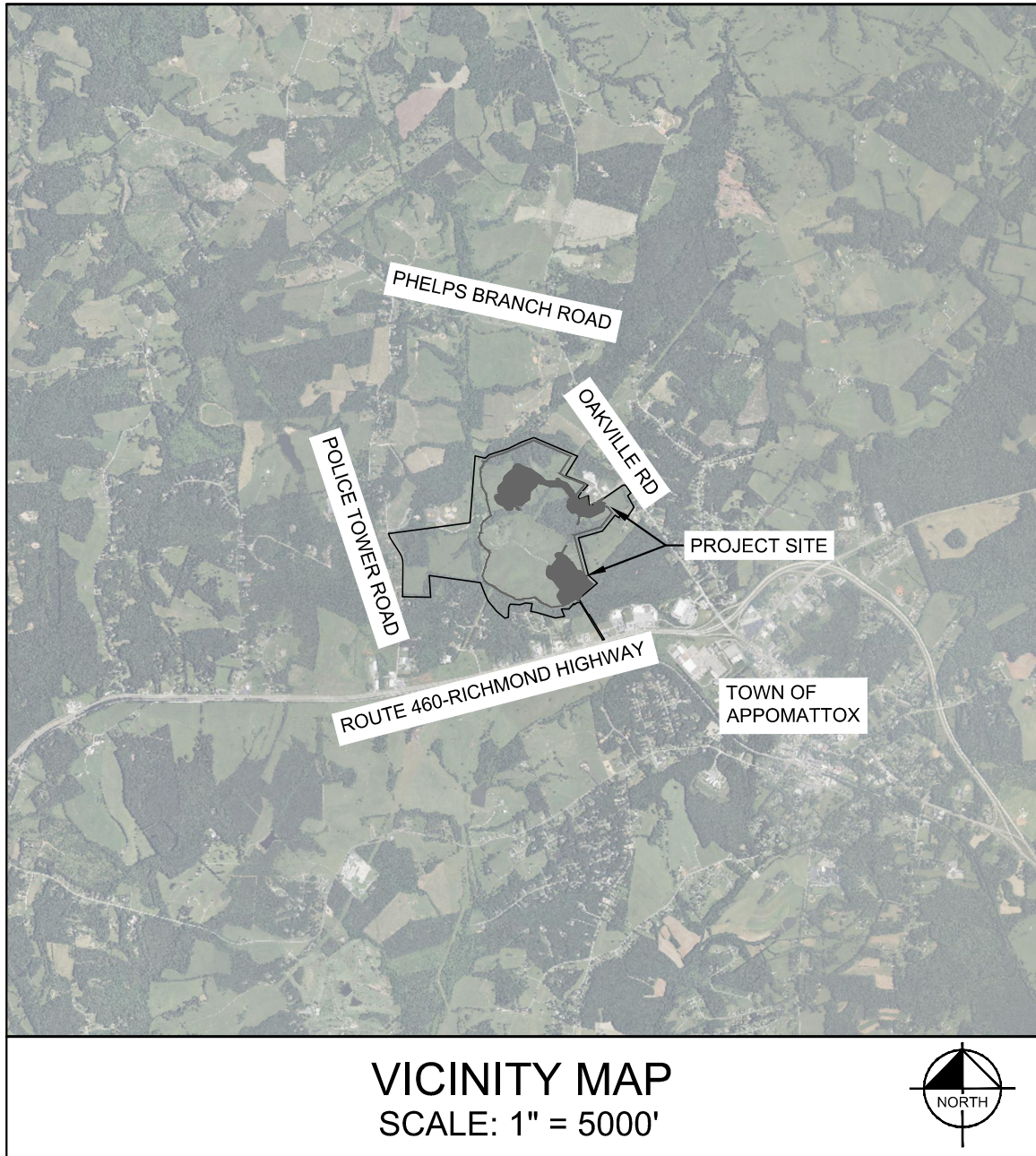
☐ Standard Approval

☒ Streamlined Approval

PROJECT CONTACT LIST

|                                                                                                                                                                                        |                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| APPLICANT                                                                                                                                                                              | PLANNING/ZONING                                                                                                               |
| ADP APPOMATTOX DATA HUB, LLC<br>107 ELM STREET, SUITE 501<br>STAMFORD, CT 06902<br>CONTACT: JOHN DELACIO<br>EMAIL: JOHN.DELACIO@AVAIOCAPITAL.COM                                       | APPOMATTOX COUNTY PLANNING DEPARTMENT<br>153A MORTON LANE<br>APPOMATTOX, VA 24522<br>TEL: 434-352-8183                        |
| OWNER                                                                                                                                                                                  | PUBLIC UTILITIES                                                                                                              |
| ECONOMIC DEVELOPMENT AUTHORITY OF<br>APPOMATTOX COUNTY<br>PO BOX 863<br>APPOMATTOX, VA 24522                                                                                           | TOWN OF APPOMATTOX PUBLIC WORKS<br>DEPARTMENT<br>210 LINDEN STREET<br>P.O. BOX 705, APPOMATTOX, VA 24522<br>TEL: 434-352-8268 |
| CIVIL ENGINEER                                                                                                                                                                         | FIRE DEPARTMENT                                                                                                               |
| KIMLEY-HORN AND ASSOCIATES, INC.<br>6086 PARAGON PLACE, SUITE 310<br>RICHMOND, VA 23230<br>TEL: (804) 462-9704<br>CONTACT: JOSH MACDONALD, PE<br>EMAIL: JOSH.MACDONALD@KIMLEY-HORN.COM | APPOMATTOX VOLUNTEER FIRE CO<br>719 CONFEDERATE BLVD<br>APPOMATTOX, VA 24522<br>TEL: 434-352-8866                             |
| ARCHITECT                                                                                                                                                                              |                                                                                                                               |
| JACOBS<br>1999 BRYAN ST,<br>DALLAS, TX 75201<br>TEL: 214-920-8319<br>CONTACT: DAVID PENSHORN, PE<br>EMAIL: DAVID.PENSHORN@JACOBS.COM                                                   |                                                                                                                               |
| SURVEYOR                                                                                                                                                                               |                                                                                                                               |
| GRS GROUP, LLC<br>6703 DELAND COURT<br>SPRINGFIELD, VA 22152<br>TEL: 703-727-5828<br>CONTACT: KEVIN STEINHILBER<br>EMAIL: KEVIN@GRSGROUPLLC.COM                                        |                                                                                                                               |

VICINITY MAP



PROJECT DATA

| SITE STATISTICS                                |                                   |
|------------------------------------------------|-----------------------------------|
| TAX MAP                                        | 63 A 80                           |
| TOTAL PARCEL AREA                              | ±448.50                           |
| LAND DISTURBANCE (PHASE 1)                     | 68.39 AC.                         |
| ZONED                                          | M-IP (MASTER PLANNED-INDUSTRIAL)  |
| EXISTING USE                                   | VACANT, WOODED, PASTURE           |
| PROPOSED USE                                   | DATA CENTER, SUBSTATION           |
| BUILDING SETBACKS REQUIRED (FRONT, SIDE, REAR) | 30', 10', 10'                     |
| BUILDING SETBACKS PROVIDED (FRONT, SIDE, REAR) | GREATER THAN 30', 10', 10'        |
| REQUIRED MINIMUM LOT AREA                      | 1.5 AC                            |
| PROVIDED MINIMUM LOT AREA                      | 448.80 AC                         |
| REQUIRED OPEN SPACE                            | MIN 20% PARCEL AREA (89.7 AC)     |
| PROVIDED OPEN SPACE                            | >20% PARCEL AREA                  |
| MAXIMUM BUILDING HEIGHT                        | 65'-0"                            |
| BUILDING FLOORS                                | 2                                 |
| PROVIDED DEVELOPABLE SF (PHASE 1)              | ±345,202 SF                       |
| PERCENT BUILDING COVERAGE TO OVERALL PARCEL    | 1.77%                             |
| HYDROLOGIC UNIT CODE                           | 020802030404 - WRECK ISLAND CREEK |
| WATER                                          | PUBLIC                            |
| SEWER                                          | PUBLIC                            |
| HISTORIC FEATURES                              | NONE                              |
| KNOWN PLACES OF BURIAL                         | NONE                              |
| WETLANDS ON SITE                               | YES                               |
| WETLAND DISTURBANCE                            | NO                                |
| RPA ON SITE                                    | NO                                |
| RPA DISTURBANCE                                | NO                                |
| FLOODPLAIN ON SITE                             | YES                               |
| FLOODPLAIN DISTURBANCE                         | NO                                |
| SOLID WASTE STORAGE                            | YES                               |
| SOLID WASTE COLLECTION                         | YES                               |

APPOMATTOX COUNTY APPROVAL BLOCK

NAME: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

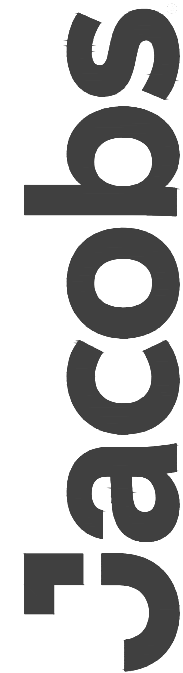
VDOT'S ACCEPTANCE OF THIS PLAN, AS INDICATED BY THEIR SIGNATURE, DOES NOT RELIEVE THE ENGINEER OF RECORD, WHOSE PROFESSIONAL SEAL IS ON THIS PLAN, FROM COMPLYING WITH ALL VDOT REGULATIONS, SPECIFICATIONS, STANDARDS AND APPLICABLE LAWS. THE ENGINEER OF RECORD IS RESPONSIBLE FOR ENSURING THE COMPLETENESS AND ACCURACY OF THEIR PLANS. VDOT'S REVIEW OF THIS PLAN DOES NOT GUARANTEE IT IS ERROR-FREE. ANY ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION REMAIN THE RESPONSIBILITY OF THE ENGINEER OF RECORD.

HORIZONTAL DATUM IS BASED ON NAD83 (NA2011), VIRGINIA STATE GRID, SOUTH ZONE. VERTICAL DATUM IS BASED ON NAVD88. DATUM ESTABLISHED THROUGH LEICA SmartNET GPS OBSERVATIONS, DECEMBER 2019 - JANUARY 2020.

SINCE SITE DISTURBANCE IS GREATER THAN ONE (1) ACRE, A VSMP CONSTRUCTION PERMIT IS REQUIRED. CONTRACTOR TO OBTAIN VSMP PERMIT PRIOR TO LAND DISTURBANCE.

ONLY THE COMPLETE AND APPROVED PAPER COPY OF THE PLAN SET INCLUDING ALL SUBSEQUENT REVISIONS WILL SERVE AS THE OFFICIAL CONSTRUCTION PLANS.

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



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|             |            |       |          |             |     |          |     |            |     |
|-------------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | DATE       | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
| 113708001   | 11/14/2025 |       |          |             |     |          |     |            |     |

COVER SHEET

PROJECT HERCULES

VA

APPOMATTOX COUNTY

SHEET NUMBER  
CA-100



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CA-101 DEQ COVER SHEET December 11, 2025 05:52:37am  
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A. APPLICATION TYPE

☐ INITIAL SUBMISSION

☒ RESUBMISSION

☐ MODIFICATION with ACREAGE INCREASE

☐ MODIFICATION without ACREAGE INCREASE

DEQ PLAN # : \_\_\_\_\_

DEQ PLAN # : \_\_\_\_\_

DEQ PLAN # : \_\_\_\_\_

B. DESIGN PROFESSIONAL

CONTACT NAME: JOSH MACDONALD, P.E.  
MAILING ADDRESS: 6086 PARAGON PLACE, RICHMOND, VIRGINIA 2320  
TELEPHONE NO.:(804) 462-9704  
EMAIL ADDRESS:JOSH.MACDONALD@KIMLEY-HORN.COM

C. PROJECT DEVELOPER

PROJECT DEVELOPER: ADP APPOMATTOX DATA HUB LLC  
CONTACT NAME: KEVIN MURPHY  
MAILING ADDRESS: 107 ELM ST - 5TH FL; STAMFORD, CT 06902  
EMAIL ADDRESS: KEVIN.MURPHY@AVAIOCAPITAL.COM

D. PROPERTY OWNER

PROJECT DEVELOPER: ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY  
CONTACT NAME: JOHNNIE ROARK  
MAILING ADDRESS: PO BOX 863, APPOMATTOX, VA 24522  
TELEPHONE NO: 434-352-8183  
EMAIL ADDRESS: JOHNNIE.ROARK@APPOMATTOXCOUNTYVA.GOV

E. PROJECT INFORMATION

PROJECT NAME: PROJECT HERCULES  
ADDRESS: N/A  
COUNTY (IF NOT LOCATED WITHIN A CITY): APPOMATTOX COUNTY  
TAX MAP NO. (OR GPIN): 63 A 80  
LATITUDE (6 DIGITS, DECIMAL DEGREES): 37.373199  
LONGITUDE (6 DIGITS, DECIMAL DEGREES): -78.853854  
TOTAL LAND AREA OF DEVELOPMENT (1/100th ACRE): 448.50  
TOTAL LAND AREA OF SWM COMPLIANCE (1/100th ACRE): 68.39 AC.  
ESTIMATED AREA TO BE DISTURBED (1/100th ACRE): 68.39 AC.  
PROJECT STATUS: ☐ FEDERAL ☐ STATE ☒ PUBLIC ☒ PRIVATE  
PART OF A LARGER COMMON PLAN OF DEVELOPMENT? ☒ YES ☐ NO  
OFFSITE IMPROVEMENTS PROPOSED? ☐ YES ☒ NO

F. OFFSITE SUPPORT ACTIVITY INFORMATION

OFFSITE SUPPORT ACTIVITY NAME:N/A  
ADDRESS (911 ADDRESS IF AVAILABLE):  
COUNTY (IF NOT LOCATED WITHIN A CITY):  
TAX MAP NO. (OR GPIN):  
LATITUDE (6 DIGITS, DECIMAL DEGREES):  
LONGITUDE (6 DIGITS, DECIMAL DEGREES):  
ESTIMATED AREA TO BE DISTURBED (1/100th ACRE):

G. PLAN INFORMATION

| GENERAL PLAN INFORMATION | SHEET NO. |
|--------------------------|-----------|
| 1. VICINITY MAP          | CA-100    |
| 2. NORTH SCALE           | ALL       |
| 3. PLAN LEGEND           | ALL       |
| 4. PLAN SCALE            | ALL       |
| 5. SHEET INDEX           | CA-102    |

| PRE-DEVELOPMENT SITE INFORMATION                                  | SHEET NO.       |
|-------------------------------------------------------------------|-----------------|
| 6. NARRATIVE OF PRE-DEVELOPMENT SITE CONDITIONS                   | CE-501          |
| 7. EXISTING PROPERTY BOUNDARIES (INC. LEASE BOUNDARIES)           | CV-101 - CV-106 |
| 8. EXISTING TOPOGRAPHY (EXISTING CONTOURS)                        | CV-100 - CV-106 |
| 9. EXISTING STREAMS, PONDS, DITCHES, WETLANDS & OTHER WATERS      | CV-101 - CV-106 |
| 10. EXISTING KARST FEATURES                                       | N/A             |
| 11. EXISTING 100-YEAR FEMA FLOODPLAIN                             | CV-101 - CV-106 |
| 12. RESOURCE PROTECTION AREAS                                     | CV-101 - CV-106 |
| 13. EXISTING IMPROVEMENTS (BUILDINGS, ROADS, PARKING & UTILITIES) | N/A             |
| 14. EXISTING VEGETATIVE AREAS (FOREST, OPEN SPACE & TURF)         | CV-101 - CV-106 |
| 15. EXISTING LAND COVER / USE TABULATION                          | CG-203 - CG-204 |
| 16. EXISTING EASEMENTS (DEED BOOK/PAGE REF. OR INSTRUMENT #)      | CV-101 - CV-106 |
| 17. PRE-DEV. DRAINAGE AREAS (ACREAGE, DIVIDES & FLOW PATHS)       | CG-201 - CG-202 |

| POST-DEVELOPMENT SITE INFORMATION                             | SHEET NO.       |
|---------------------------------------------------------------|-----------------|
| 18. NARRATIVE OF POST-DEVELOPMENT SITE CONDITIONS             | CS-100          |
| 19. PROPOSED PROPERTY BOUNDARIES (INC. LEASE BOUNDARIES)      | CS-100          |
| 20. PROPOSED LIMITS OF LAND DISTURBANCE (CLEARING & GRADING)  | CS-100 - CS-106 |
| 21. PROPOSED GRADING (PROPOSED CONTOURS INC. SWM PRACTICES)   | CG-100 - CG-106 |
| 22. PROPOSED 100-YEAR FLOODPLAIN                              | N/A             |
| 23. PROPOSED IMPROVEMENTS (BLDGs, ROADS, PARKING & UTILITIES) | CS-101 - CS-106 |
| 24. PROPOSED VEGETATIVE AREAS (FOREST, OPEN SPACE & TURF)     | CS-100 - CS-106 |
| 25. PROPOSED LAND COVER / USE TABULATION                      | CG-203          |
| 26. PROPOSED EASEMENTS                                        | CS-100 - CS-106 |
| 27. POST-DEV. DRAINAGE AREAS (ACREAGE, DIVIDES & FLOW PATHS)  | CG-203          |

| EROSION & SEDIMENT CONTROL INFORMATION                       | SHEET NO.         |
|--------------------------------------------------------------|-------------------|
| 28. NARRATIVE OF PROP. EROSION & SEDIMENT CONTROLS           | CE-501            |
| 29. MINIMUM STANDARDS (9VAC25-840-40)                        | CE-501            |
| 30. CRITICAL EROSION AREAS (VSMH, LATEST EDITION)            | CE-101 - CE-103   |
| 31. PROP. EROSION & SEDIMENT CONTROLS (VSMH, LATEST EDITION) | CE-101 - CE-103   |
| 32. EROSION & SEDIMENT CONTROL DETAIL DRAWINGS               | CE-502 - CE-504   |
| 33. HYDROLOGIC & HYDRAULIC COMPUTATIONS                      | SWM/ESC NARRATIVE |
| 34. INSPECTION, OPERATION & MAINTENANCE REQUIREMENTS         | CE-501            |

PLAN SUBMISSION CHECKLIST

[ SEE DEQ GUIDANCE MEMO NO. 22-2012 FOR ADDITIONAL INSTRUCTIONS ]

G. PLAN INFORMATION (CONT.)

| POST-DEVELOPMENT WATER QUANTITY & WATER QUALITY INFO.                                                                                                                   | SHEET NO.                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 35. NARRATIVE OF PROP. SWM FACILITIES / PRACTICES                                                                                                                       | CG-209                                      |
| 36. PROP. SWM FACILITIES / PRACTICES                                                                                                                                    | CG-401 - CG-504                             |
| 37. HYDROLOGIC & HYDRAULIC COMPUTATIONS *                                                                                                                               | SWM/ESC NARRATIVE APPENDIX K, M, N, O, P, Q |
| 38. LONG-TERM INSP., OPERATION & MAINTENANCE REQUIREMENTS                                                                                                               | CG-401 - CG-406                             |
| 39. OUTFALL SUMMARY TABLE WITH PRE, POST, AND ALLOWABLE DISCHARGE RATES USED FOR QUANTITY ASSESSMENT; IDENTIFY THE TYPE OF CONVEYANCE SYSTEM AT EACH POINT OF DISCHARGE | CG-209                                      |

\* STORM DRAIN DESIGN COMPUTATIONS AND HYDRAULIC GRADE LINE COMPUTATIONS SHOULD BE PROVIDED AND SHOULD INCLUDE EACH PIPE SEGMENT. IN ADDITION, STORM SEWER LONGITUDINAL PROFILES WITH HYDRAULIC GRADE LINE ELEVATIONS SHOULD BE INCLUDED FOR VISUAL REPRESENTATION. DESIGN CALCULATIONS AND CROSS-SECTIONS SHOULD BE PROVIDED FOR ALL OPEN MANMADE CHANNELS. CROSS-SECTIONS SHOULD SHOW AND LABEL THE 1-YEAR, 2-YEAR, AND 10-YEAR WATER SURFACE ELEVATIONS.

| SOILS & GEOTECHNICAL INFORMATION        | SHEET NO.                    |
|-----------------------------------------|------------------------------|
| 40. SOILS MAP (INC. NRCS SOIL TYPES)    | SWM/ESC NARRATIVE APPENDIX B |
| 41. SOILS TABULATION                    | SWM/ESC NARRATIVE APPENDIX B |
| 42. GEOTECHNICAL INVESTIGATION / REPORT | N/A                          |

| OTHER SUPPORTING INFORMATION                     | SHEET NO.  |
|--------------------------------------------------|------------|
| 43. BOUNDARY SURVEY (18VAC10-20-370)             | ATTACHMENT |
| 44. PHYSICAL IMPROVEMENT SURVEY (18VAC10-20-380) | ATTACHMENT |
| 45. TOPOGRAPHIC SURVEY (18VAC10-20-382)          | ATTACHMENT |

H. LAND COVER TABULATION

| EXISTING LAND COVER / USE                              | ACRES |
|--------------------------------------------------------|-------|
| 1. IMPERVIOUS COVER                                    | 0.35  |
| IMPERVIOUS COVER (% OF TOTAL LAND AREA OF DEVELOPMENT) | 0.51% |
| 2. PASTURE                                             | 59.15 |
| 3. OPEN SPACE                                          | --    |
| 4. FOREST COVER                                        | 8.89  |
| 5. PRIME FARMLAND (NRCS FARMLAND CLASSIFICATION)       | --    |

| PROPOSED LAND COVER                                    | ACRES  |
|--------------------------------------------------------|--------|
| 1. IMPERVIOUS COVER                                    | 28.70  |
| IMPERVIOUS COVER (% OF TOTAL LAND AREA OF DEVELOPMENT) | 41.96% |
| 2. MANAGED TURF                                        | 39.69  |
| 3. OPEN SPACE                                          | --     |
| 4. FOREST COVER                                        | --     |

| MAP UNIT SYMBOL | MAP UNIT NAME                  | HSG | K FACTOR | ERODIBILITY | ACRES IN LOD | % OF LOD |
|-----------------|--------------------------------|-----|----------|-------------|--------------|----------|
| 1A              | ALTAVISTA LOAM                 | C   | 0.37     | LOW         | 0.2          | 0.3%     |
| 2B              | APPOMATTOX-CULLEN COMPLEX      | C   | 0.15     | MEDIUM      | 6.9          | 9.8%     |
| 5B              | CECIL SANDY LOAM               | B   | 0.24     | MEDIUM      | 16.7         | 25.2%    |
| 6A              | CHEWACLA LOAM                  | B/D | 0.32     | VERY HIGH   | 2.3          | 3.2%     |
| 7B              | CULLEN CLAY LOAM               | B   | 0.28     | MEDIUM      | 8.4          | 11.9%    |
| 12B             | MATTAPONI-CECIL                | C   | 0.20     | MEDIUM      | 0.1          | 0.1%     |
| 15B             | MECKLENBURG-POINDEXTER COMPLEX | C   | 0.43     | MEDIUM      | 0.3          | 0.4%     |
| 15C             | MECKLENBURG-POINDEXTER COMPLEX | C   | 0.43     | MEDIUM      | 9.5          | 13.5%    |
| 15D             | MECKLENBURG-POINDEXTER COMPLEX | C   | 0.43     | HIGH        | 1.1          | 1.5%     |
| 18C             | PACOLET-LOUISBURG COMPLEX      | B   | 0.24     | HIGH        | 22.89        | 34.1%    |

J. EROSION & SEDIMENT CONTROL

ESC PLAN VARIANCE REQUEST: ☐ YES ☒ NO

IF "YES", PLEASE PROVIDE JUSTIFICATION FOR THE VARIANCE REQUEST:

K. STORMWATER MANAGEMENT

APPLICABLE DESIGN CRITERIA: ☒ PART II B  
☐ PART II C (GRANDFATHERING)  
☐ PART II C (TIME LIMITS ON APPLICABILITY)  
☐ "SAFE HARBOR"

OFFSITE COMPLIANCE OPTION(S)? ☐ YES ☒ NO

IF "YES", PLEASE DESCRIBE THE OFFSITE COMPLIANCE OPTION(S):

DISCHARGE TO A KARST FEATURE(S)? ☐ YES ☒ NO

IF "YES", PLEASE DESCRIBE THE KARST FEATURE(S):

IF "YES", PLEASE DESCRIBE ANY KNOWN NATURAL HERITAGE RESOURCES IN THE KARST FEATURE(S):

SWM PLAN EXCEPTION REQUEST? ☐ YES ☒ NO

IF "YES", PLEASE PROVIDE THE JUSTIFICATION FOR THE EXCEPTION REQUEST:

L. STORMWATER MANAGEMENT FACILITIES / PRACTICES

| FACILITY NO. | FACILITY TYPE    | LAT.    | LONG.    | REC. WATER         | TOT. ACRES TREATED | IMP. ACRES TREATED | PLAN SHEET NO.  |
|--------------|------------------|---------|----------|--------------------|--------------------|--------------------|-----------------|
| POND A       | LEVEL 2 WET POND | 37.3745 | -78.8586 | WRECK ISLAND CREEK | 23.29              | 13.37              | CG-401 & CG-402 |
| POND B       | LEVEL 2 WET POND | 37.3741 | -78.8518 | WRECK ISLAND CREEK | 4.84               | 1.82               | CG-403 & CG-404 |
| POND C       | LEVEL 2 WET POND | 37.3670 | -78.8528 | WRECK ISLAND CREEK | 14.11              | 10.76              | CG-405 & CG-406 |

M. OWNER / DEVELOPER CERTIFICATION

I hereby certify that coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities will be obtained, if required, prior to commencing land-disturbing activities.

I hereby certify that all wetlands permits required by law will be obtained, if required, prior to commencing land disturbing activities.

I hereby certify that permission to construct any offsite improvements, if proposed, will be obtained prior to commencing land disturbing activities.

I hereby certify that all offsite nonpoint source nutrient credits will be obtained, if proposed, prior to commencing land disturbing activities.

I hereby certify that construction record drawings (as-built drawings) for all permanent stormwater management facilities/practices will be prepared and submitted to DEQ prior to project closeout. The construction record drawings will be appropriately sealed and by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities/practices have been constructed in accordance with the approved plan(s).

I hereby certify that a long-term maintenance agreement(s) for all permanent stormwater management facilities/practices and other techniques specified to manage the quality and quantity of runoff will be submitted to DEQ, if required, prior to project closeout. The long-term maintenance agreement(s) will be recorded in the local land records prior to termination of coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities.

OWNER / DEVELOPER NAME: ADP APPOMATTOX DATA HUB, LLC

OWNER / DEVELOPER TITLE: VICE PRESIDENT

SIGNATURE: *Kevin Murphy*

DATE: 11/14/2025

N. DESIGN PROFESSIONAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I hereby certify that the plans and hydrologic & hydraulic computations herein are in compliance with the Stormwater Management Act and attendant regulations, the Erosion and Sediment Control Law and attendant regulations, and applicable DEQ guidance.

DESIGN PROFESSIONAL NAME: JOSH MACDONALD, P.E.  
LICENSE NO.: 0402057995

SIGNATURE: *Josh MacDonald*

DATE:11/14/2025

O. DUAL COMBINED ADMINISTRATOR (DCA) CERTIFICATION

I hereby certify that I have reviewed the plans and hydrologic & hydraulic computations herein for compliance with the Stormwater Management Act and attendant regulations, the Erosion and Sediment Control Law and attendant regulations, and applicable DEQ guidance, and recommend the plans and computations for DEQ approval.

DCA Name: Cutter Sydnor

DCA Certification No.: DCA0602

Signature: *Cutter Sydnor*

Date: November 14, 2025

DEQ PLAN #

APPROVAL BLOCK

DEQ PLAN # 20\_\_ - 0\_\_

DEPT. OF ENVIRONMENTAL QUALITY

DATE

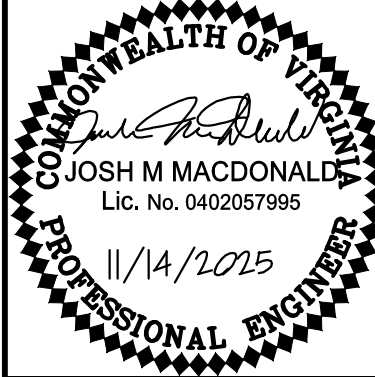
DESIGN PROFESSIONAL

KIMLEY HORN  
JOSH MACDONALD  
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Jacobs

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|                          |                    |                |                    |                 |                   |
|--------------------------|--------------------|----------------|--------------------|-----------------|-------------------|
| KHA PROJECT<br>113708001 | DATE<br>11/14/2025 | SCALE AS SHOWN | DESIGNED BY<br>STM | DRAWN BY<br>STM | CHECKED BY<br>JMM |
|--------------------------|--------------------|----------------|--------------------|-----------------|-------------------|

DEQ COVER SHEET

PROJECT HERCULES

VA

APPOMATTOX COUNTY

SHEET NUMBER  
CA-101



Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CA-102 SHEET INDEX November 05, 2025 04:09:52pm  
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| CV-101 THRU CV-107 | EXISTING CONDITIONS & DEMOLITION PLAN         |
| CE-100             | OVERALL PHASE I EROSION AND SEDIMENT CONTROL  |
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| KHA PROJECT | DATE       | SCALE    | DESIGNED BY | DRAWN BY | CHECKED BY |
| 113706001   | 11/14/2025 | AS SHOWN | STM         | STM      | JMM        |

SHEET INDEX

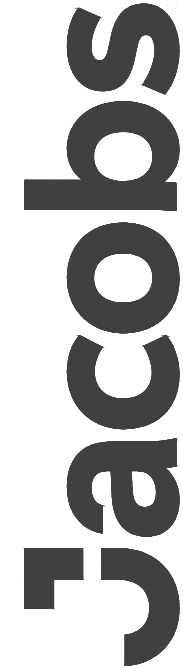
PROJECT HERCULES

SHEET NUMBER  
CA-102

APPOMATTOX COUNTY  
VA

Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.  
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WWW.KIMLEY-HORN.COM





1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THESE DRAWINGS, PROJECT SPECIFICATIONS, WITH ALL CURRENT APPLICABLE CODES, AND, UNLESS OTHERWISE SPECIFIED, WITH THE LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS:
  - A. APPOMATTOX COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS
  - B. TOWN OF APPOMATTOX UTILITY CONSTRUCTION STANDARDS AND SPECIFICATIONS
  - C. VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD & BRIDGE SPECIFICATIONS
  - D. VDOT ROAD AND BRIDGE STANDARDS
  - E. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
  - F. VIRGINIA WORK AREA PROTECTION MANUAL.
  - G. VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH)
  - H. VIRGINIA DEPARTMENT OF HEALTH (VDH) SPECIFICATIONS

1. ALL CONSTRUCTION SHALL CONFORM WITH APPLICABLE STATE (INCLUDING VDOT) AND LOCAL CONSTRUCTION STANDARDS AS IDENTIFIED IN THESE PLANS. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND MAINTAIN COPIES OF THEM ON-SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN A SET OF CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON-SITE AT ALL TIMES DURING CONSTRUCTION.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
4. ALL PAINT STRIPING, PAVEMENT MARKINGS, AND SIGNAGE SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," MOST CURRENT REVISION OR AS OTHERWISE SPECIFIED. ALL REFERENCED SIGN STANDARDS ARE TAKEN FROM THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," ALL NEW SIGNS SHALL BE MOUNTED ON GALVANIZED POSTS AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES ASSOCIATED WITH THE PROJECT WORK SCOPE DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" OF VIRGINIA @ 811 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.
6. ANY DAMAGE OCCURRING TO THE EXISTING SITE INFRASTRUCTURE ON THIS OR THE ADJACENT SITE DURING THE CONSTRUCTION OPERATIONS AND/OR MOBILIZATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL EXISTING DAMAGED ITEMS INCLUDING CONCRETE AND/OR PAVEMENT SECTIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS PRIOR TO PROJECT COMPLETION AT THE EXPENSE OF THE CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAYS, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION INSIDE AND OUTSIDE OF THE LIMITS OF CONSTRUCTION.
8. ANY AND ALL UTILITIES AND/OR OBSTRUCTIONS (POWER POLES, TELEPHONE PEDESTALS, GUY WIRES, WATER METERS, ETC.) THAT ARE REQUIRED TO BE RELOCATED OR ADJUSTED DUE TO CONSTRUCTION SHALL BE DONE SO AT THE OWNERS/DEVELOPERS EXPENSE.
9. SLOPES WITHIN THE LIMITS OF THE HANDICAPPED PARKING AREAS SHALL NOT EXCEED 1.5% IN ANY DIRECTION. CROSSLINKS AND SIDEWALKS SHALL HAVE A MAXIMUM GROSS SLOPE OF 1.5% AND A MINIMUM LONGITUDINAL SLOPE OF 5% IN DIRECTION OF TRAVEL. SLOPES IN HANDICAP RAMPS SHALL BE BUILT IN CONFORMANCE WITH ILATEST ADA CRITERIA AND LOCAL DESIGN STANDARDS.
10. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL THE REMOVED/DEMOLISHED MATERIAL FROM THE PROJECT SITE AND DISPOSE OF SAME IN A LEGAL MANNER.
11. TRYING TO EXISTING PAVEMENT: EXISTING PAVEMENT SHALL BE NEATLY SAW CUT TO A STRAIGHT LINE AND ALL PAVING ON THE NEW PAVEMENT SIDE OF THE CUT SHALL BE COMPLETELY REMOVED AND REPLACED WITH SPECIFIED MATERIALS. THE CUT LINE SHALL BE FULL-DEPTH AND COATED WITH A TACK COAT TO FURNISH A BOND BETWEEN THE EXISTING SURFACE COURSE AND THE NEW SURFACE COURSE.
12. TRYING TO EXISTING CURB/GUTTER: THE EXISTING PAVEMENT SHALL BE NEATLY SAW CUT AND REMOVED FOR A DISTANCE OF 20" FROM FACE OF THE CURB AND 20" FROM THE EDGE OF CURB AND GUTTER AND THE SUBGRADE, BASE COURSE, AND PAVING REPLACED WITH NEW PRODUCTS.
13. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO KIMLEY-HORN & ASSOCIATES, INC. AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY KIMLEY-HORN & ASSOCIATES, INC. IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.
14. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
15. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
16. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.
17. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSSED BY THE AGENCIES, AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
18. BRACING OF UTILITY POLES MAY BE REQUIRED BY UTILITY COMPANIES WHEN TRENCHING OR EXCAVATION IS IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR. THERE IS NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE VARIOUS PAY ITEMS FOR INSTALLATION OF PIPE.
19. ALL EXISTING TRAFFIC AND STREET SIGNS DISTURBED SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR.
20. UNLESS THE PLANS SPECIFICALLY DICTATE TO THE CONTRARY, ON-SITE AND OTHER DIRECTIONAL SIGNS SHALL BE LOCATED OUT OF THE PEDESTRIAN AND AUTOMOBILE ROUTES AND SHALL BE LOCATED BETWEEN THREE TO FIVE FEET BEHIND THE NEAREST BACK OF CURB. SIGN HEIGHT, LOCATION, AND STRUCTURE SHALL BE SUCH THAT THE SIGNS POSE NO THREAT TO PUBLIC SAFETY.

1. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:
  - A. ENSURING THAT COPIES OF ALL APPLICABLE PERMITS AND APPROVALS ARE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW.
  - B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL AND/OR TREE PROTECTION MEASURES PRIOR TO SITE DISTURBANCE.
  - C. LOCATING (VERTICALLY AND HORIZONTALLY) ALL UTILITIES AND SERVICES, INCLUDING, BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
  - E. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
  - F. COORDINATION WITH UTILITY COMPANIES & ADJACENT LANDOWNERS/BUSINESSES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
2. NEITHER KIMLEY-HORN & ASSOCIATES, INC. NOR THE OWNER IS RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
3. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES.
4. IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
5. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS - OF - WAY.
6. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.
7. USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
8. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
9. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
10. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.

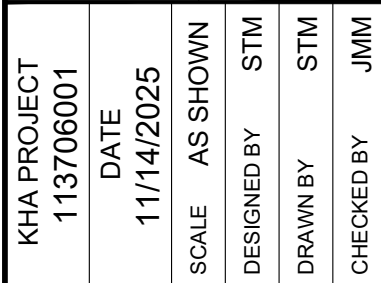
1. ALL STORM SEWER PIPES, MANHOLES, AND CURB INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS AT THE LAST STAGES OF CONSTRUCTION.
2. STORM DRAIN PIPE AND FLARED END SECTIONS ARE TO BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SECTION 302 OF VDOT ROAD AND BRIDGE SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-76 FOR REINFORCED CONCRETE CULVERT AND STORM DRAIN PIPE. ALL PIPE FOR STORM DRAINS SHALL BE REINFORCED CONCRETE CLASS III UNLESS INDICATED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL USE A PERFORMED FLEXIBLE PLASTIC SEALING COMPOUND OF BUTYL MASTIC ROPE SEALER - 1" SIZE, "EZ STICK" AS MANUFACTURED BY CONCRETE PRODUCTS SUPPLY OR AN APPROVED EQUAL FOR SEALING WATER-TIGHT JOINTS. VERTICAL CLEARANCE OF 12" BETWEEN STORM AND OTHER UTILITIES IS REQUIRED UNLESS OTHERWISE NOTED.
3. ALL EXISTING STORM SEWER PIPES, DROP INLETS, AND CURB INLETS BEING UTILIZED BY A PART OF THE DRAINAGE SYSTEM SHALL BE CLEANED OF ERODED MATERIAL AT ALL STAGES OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER. THE COST INCIDENTAL TO THIS IS TO BE INCLUDED IN THE CONTRACT PRICE FOR THE OTHER DRAINAGE ITEMS.
4. STORM SEWER PIPES AS SHOWN ON THE PLANS ARE MEASURED FROM THE CENTERLINE OF EACH STRUCTURE AND INVERT ELEVATIONS ARE ESTABLISHED BASED ON THIS CENTER LINE DISTANCE. LENGTH CALL OUTS FOR PIPES WITH FLARED END SECTIONS WILL BE MEASURED TO THE JOINT. CONTRACTOR SHALL LOCATE ALL END SECTIONS TO MATCH THE BANK SLOPE AND THE PIPE SLOPE SHALL BE ADJUSTED AS NECESSARY.
5. BOOT CONNECTIONS SHALL BE PROVIDED FOR ALL PLASTIC PIPES THAT TIE INTO A CONCRETE STRUCTURE.
6. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START. SEE EXISTING CONDITIONS SHEET FOR UTILITY CONTACT INFORMATION.
7. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVED BY APPLICABLE AUTHORITY.
8. ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED AND LOCATED BY THE GENERAL CONTRACTOR PRIOR TO GRADING BREAKING.
9. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT "EZ FLOW" WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET FLOW OVERLAND.
10. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL S.V.M.P. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
12. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
13. AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVEMENT AREAS FOR EVIDENCE OF PONDING. ALL AREAS SHALL ADEQUATELY DRAIN TOWARDS THE INTENDED STRUCTURE OR EXISTING STORM RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES OR UTILITIES BY OTHERS, AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND VARIOUS POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE.
4. THE CONTRACTOR SHALL PERFORM WHATEVER TEST EXCAVATION OR OTHER INVESTIGATION IS NECESSARY TO VERIFY TIE-INS INVERTS, LOCATIONS AND CLEARANCES, AND SHALL REPORT IMMEDIATELY ANY DISCREPANCIES TO KIMLEY-HORN AND ASSOCIATES, INC. AT (804) 673-3882.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
6. MAINTAIN A MINIMUM OF 18" OF VERTICAL CLEARANCE BETWEEN STORM, SANITARY, AND ALL UTILITIES (UNLESS OTHERWISE NOTED).
7. CROSS CONNECTION CONTROL AND BACK FLOW PREVENTION SHALL BE IN ACCORDANCE WITH THE UNIFORM STATEWIDE BUILDING CODE.
8. CONTRACTOR SHALL COORDINATE WITH THE FIRE MARSHAL BEFORE INSTALLING FIRE LANE SIGNS AND MARKINGS.
9. ALL CLEANOUTS WITHIN VEHICULAR AREAS SHALL BE TRAFFIC BARRIERS.
10. CONTRACTOR SHALL SAW CUT, REMOVE, AND REPLACE ASPHALT PAVEMENT AS NECESSARY TO INSTALL UNDERGROUND ELECTRIC, TELEPHONE, SANITARY SEWER, WATER, AND COMMUNICATION CONDUITS.
11. UNDERGROUND UTILITIES INSTALLED ON PRIVATE PROPERTY OR IN PRIVATE UTILITY EASEMENTS AND BUILDING RELATED STORM DRAINS SHALL BE DESIGNED AND INSTALLED PER THE CURRENT EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE.
12. PROPOSED CROSSINGS WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
13. THE RIM ELEVATIONS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.

1. WHENEVER CONSTRUCTION OPERATIONS ENDOURCH ON THE RIGHT-OF WAY OF ADJACENT ROADWAYS, TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL AND STATE STANDARDS.
2. NO MATERIALS OR EQUIPMENT SHALL BE STORED OR STOCKPILED WITHIN THE RIGHT-OF-WAY OF ADJACENT ROADWAYS.
3. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR COMPLETING AND IMPLEMENTING TRAFFIC CONTROL PLAN.

1. IF REQUIRED FOR THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE FOLLOWING SHOP DRAWINGS: DETENTION SYSTEM, RETAINING WALLS, STORMWATER QUALITY DEVICES.
2. CONTRACTOR TO SUBMIT TO THE COUNTY ALL SHOP DRAWINGS REQUIRED BY THE COUNTY FOR THEIR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

1. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
2. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
3. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
4. ANY COMPONENTS OF THE PROJECT SERVING MULTIFAMILY DWELLINGS IN BUILDINGS THAT HAVE 4 OR MORE UNITS PER DWELLING SHALL ALSO CONFORM TO THE FAIR HOUSING ACT (FHA), AND COMPLY WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
5. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
6. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAYING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.



# PROJECT HERCULES

APPOMATTOX COUNTY

SHEET NUMBER  
**CA-103**



TITLE NOTES

THIS SURVEY IS PREPARED WITH REFERENCE TO A TITLE COMMITMENT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, COMMITMENT NO. NTS-203366-VA-1 WITH AN EFFECTIVE DATE OF SEPTEMBER 30, 2024. OUR OFFICE HAS REVIEWED THE FOLLOWING SURVEY RELATED EXCEPTIONS IN SCHEDULE B, SECTION II:

⑦ EASEMENT GRANTED TO THE AMERICAN TELEPHONE & TELEGRAPH CO. OF VIRGINIA, DATED APRIL 15, 1899, RECORDED AUGUST 13, 1931 IN DEED BOOK 31, PAGE 143, **MAY AFFECT SUBJECT PROPERTY, VAGUE AND INSUFFICIENT INFORMATION IN THE RECORD DOCUMENT.**

⑧ EASEMENT GRANTED TO THE VIRGINIA PUBLIC SERVICE COMPANY, DATED MARCH 10, 1931, RECORDED DECEMBER 29, 1931 IN DEED BOOK 31, PAGE 285, **MAY AFFECT SUBJECT PROPERTY, VAGUE AND INSUFFICIENT INFORMATION IN THE RECORD DOCUMENT.**

⑨ EASEMENT GRANTED TO THE VIRGINIA PUBLIC SERVICE COMPANY, DATED JUNE 9, 1931, RECORDED NOVEMBER 20, 1931 IN DEED BOOK 31, PAGE 285, **MAY AFFECT SUBJECT PROPERTY, VAGUE AND INSUFFICIENT INFORMATION IN THE RECORD DOCUMENT.**

⑩ EASEMENT GRANTED TO THE VIRGINIA PUBLIC SERVICE COMPANY, DATED JULY 16, 1931, RECORDED DECEMBER 29, 1931 IN DEED BOOK 31, PAGE 341, **MAY AFFECT SUBJECT PROPERTY, VAGUE AND INSUFFICIENT INFORMATION IN THE RECORD DOCUMENT.**

⑪ EASEMENT GRANTED TO THE VIRGINIA PUBLIC SERVICE COMPANY, DATED JULY 16, 1931, RECORDED DECEMBER 29, 1931 IN DEED BOOK 31, PAGE 343, **MAY AFFECT SUBJECT PROPERTY, VAGUE AND INSUFFICIENT INFORMATION IN THE RECORD DOCUMENT.**

⑫ RIGHT OF WAY GRANTED TO THE VIRGINIA PUBLIC SERVICE COMPANY, DATED JULY 21, 1939, RECORDED AUGUST 16, 1939 IN DEED BOOK 38, PAGE 353, **DOES NOT AFFECT THE SUBJECT PROPERTY, EASEMENT LOCATION POINT OF BEGINNING AT ROUTE 613 AND ROUTE 460 INTERSECTION EXTENDING IN A NORTHWARD DIRECTION ALONG THE EAST SIDE OF ROUTE 613 860 FEET.**

⑬ RIGHT OF WAY AGREEMENT GRANTED TO THE TRANSCONTINENTAL GAS PIPE LINE CORPORATION, A DELAWARE CORPORATION, DATED SEPTEMBER 19, 1949, RECORDED OCTOBER 18, 1949 IN DEED BOOK 52, PAGE 157, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

⑭ EASEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, A VIRGINIA CORPORATION, DATED OCTOBER 8, 1949, RECORDED DECEMBER 3, 1949 IN DEED BOOK 52, PAGE 342, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

⑮ RIGHT OF WAY AGREEMENT GRANTED TO THE TRANSCONTINENTAL GAS PIPE LINE CORPORATION, A DELAWARE CORPORATION, DATED JANUARY 10, 1950, RECORDED MARCH 20, 1950 IN DEED BOOK 53, PAGE 61, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

⑯ RIGHT OF WAY AGREEMENT GRANTED TO THE TRANSCONTINENTAL GAS PIPE LINE CORPORATION, A DELAWARE CORPORATION, DATED MARCH 15, 1950, RECORDED MAY 22, 1950 IN DEED BOOK 53, PAGE 193, **MAY AFFECT SUBJECT PROPERTY, NOT ENOUGH INFORMATION IN RECORD DOCUMENT TO DETERMINE THE LOCATION OF THE 66 ACRE TRACT OF LAND SITUATED ON THE NORTH SIDE OF THE RAILROAD; PLAT NOT ATTACHED.**

⑰ EASEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, A VIRGINIA CORPORATION, DATED JULY 3, 1950, RECORDED SEPTEMBER 14, 1950 IN DEED BOOK 53, PAGE 441, **MAY AFFECT SUBJECT PROPERTY, NOT ENOUGH INFORMATION IN RECORD DOCUMENT TO DETERMINE THE LOCATION OF THE 162 ACRE TRACT OF LAND.**

⑱ EASEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, A VIRGINIA CORPORATION, DATED MAY 21, 1951, RECORDED AUGUST 9, 1951 IN DEED BOOK 55, PAGE 400, **DOES NOT AFFECT THE SUBJECT PROPERTY, 16 ACRE TRACT OF LAND ON SOUTH SIDE OF ROUTE 460.**

⑲ EASEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, A VIRGINIA CORPORATION, DATED SEPTEMBER 5, 1951, RECORDED OCTOBER 4, 1951 IN DEED BOOK 56, PAGE 118, **MAY AFFECT SUBJECT PROPERTY, NOT ENOUGH INFORMATION IN RECORD DOCUMENT TO DETERMINE THE LOCATION OF THE 150 ACRE TRACT OF LAND.**

⑳ AGREEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, DATED AUGUST 26, 1953, RECORDED FEBRUARY 18, 1954 IN DEED BOOK 60, PAGE 80, **MAY AFFECT SUBJECT PROPERTY, NOT ENOUGH INFORMATION IN RECORD DOCUMENT TO DETERMINE THE LOCATION OF THE VEPCO EASEMENT ON THE LANDS FORMERLY OF D.R. CALDWELL.**

㉑ AGREEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, DATED MAY 6, 1954, RECORDED JUNE 6, 1954 IN DEED BOOK 60, PAGE 80, **DOES NOT AFFECT THE SUBJECT PROPERTY, EASEMENT ON THE WESTERN SIDE OF ROUTE 613.**

㉒ RIGHT OF WAY GRANTED TO THE TRANSCONTINENTAL GAS PIPE LINE CORPORATION, A DELAWARE CORPORATION, DATED MARCH 5, 1985, RECORDED APRIL 9, 1985 IN DEED BOOK 160 PAGE 703, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉓ DEED OF EASEMENT GRANTED TO THE HISTORY JUNCTION ASSOCIATES, A VIRGINIA GENERAL PARTNERSHIP, DATED AUGUST 15, 1989, RECORDED FEBRUARY 22, 1990 IN DEED BOOK 184, PAGE 612, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉔ RIGHT OF WAY AND EASEMENT AGREEMENT - (VIRGINIA) GRANTED TO THE VVXX OF VIRGINIA, INC., DATED AUGUST 16, 1997, RECORDED SEPTEMBER 15, 1997 IN DEED BOOK 236, PAGE 693, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉕ EASEMENT CONTAINED IN DEED OF EXCHANGE MADE BY AND BETWEEN INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA AND NANNIE LUCILLE DOSS, DATED DECEMBER 3, 1999, RECORDED DECEMBER 6, 1999 IN DEED BOOK 258, PAGE 759, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉖ COVENANTS, CONDITIONS, RESTRICTIONS, ETC., AS SET FORTH IN PROTECTIVE COVENANTS, CONDITIONS AND RESTRICTIONS FOR THE APPOMATTOX COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY APPOMATTOX CENTER FOR BUSINESS AND COMMERCE, DATED MAY 28, 2003, RECORDED MAY 30, 2003, AS INSTRUMENT NO. 200301352, **AFFECTS THE SUBJECT PROPERTY, GENERAL IN NATURE, PROTECTIVE COVENANTS, CONDITIONS AND RESTRICTIONS, NOT PLOTTABLE.**

㉗ DEED OF EASEMENT MADE BY AND BETWEEN INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA AND H. CURTIS PEARSON, JR., DAVID T. PERKINS AND KATIE W. PEARSON, EXECUTOR OF THE ESTATE AND UNDER THE WILL AND CODICIL OF HARRY C. PEARSON, DECEASED, DATED NOVEMBER 10, 2003, RECORDED DECEMBER 17, 2003, AS INSTRUMENT NO. 200303425, **AFFECTS THE SUBJECT PROPERTY, EASEMENT LOCATION CAN NOT BE DETERMINED, REFERENCE PLATS PLAT BOOK 8 PAGE 39 AND PLAT CABINET I SLIDE 87-C NOT ATTACHED TO RECORD DOCUMENT, NOT PLOTTABLE.**

㉘ SUBDIVISION EASEMENT AGREEMENT GRANTED TO THE CENTRAL VIRGINIA ELECTRIC COOPERATIVE, A VIRGINIA CORPORATION, DATED NOVEMBER 25, 2003, RECORDED SEPTEMBER 15, 2004 AS INSTRUMENT NO. 200402296, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉙ EASEMENT AGREEMENT GRANTED TO THE CENTRAL VIRGINIA ELECTRIC COOPERATIVE, A VIRGINIA CORPORATION, DATED FEBRUARY 10, 2004, RECORDED SEPTEMBER 15, 2004 AS INSTRUMENT NO. 200402297, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉚ UNDERGROUND EASEMENT AGREEMENT GRANTED TO THE CENTRAL VIRGINIA ELECTRIC COOPERATIVE, A VIRGINIA CORPORATION, DATED MAY 22, 2006, RECORDED NOVEMBER 16, 2006 AS INSTRUMENT NO. 200602805, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉛ EASEMENT GRANTED TO THE COMMONWEALTH OF VIRGINIA, DATED JUNE 11, 2007, RECORDED AUGUST 8, 2007, AS INSTRUMENT NO. 200702086, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉜ UNDERGROUND EASEMENT AGREEMENT GRANTED TO THE CENTRAL VIRGINIA ELECTRIC COOPERATIVE, A VIRGINIA CORPORATION, DATED APRIL 8, 2009, RECORDED AUGUST 3, 2009 AS INSTRUMENT NO. 200901603, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉝ UNDERGROUND EASEMENT AGREEMENT GRANTED TO THE CENTRAL VIRGINIA ELECTRIC COOPERATIVE, A VIRGINIA CORPORATION, DATED AUGUST 24, 2010 RECORDED NOVEMBER 5, 2010 AS INSTRUMENT NO. 201001875, **DOES NOT AFFECT THE SUBJECT PARCEL, EASEMENT LOCATION NORTH WEST IN PARCEL 63-A-81.**

㉞ DEED OF EASEMENT GRANTED TO THE COUNTY OF APPOMATTOX, VIRGINIA, DATED APRIL 19, 2010 RECORDED FEBRUARY 14, 2013 AS INSTRUMENT NO. 201300273 AND AS AMENDED BY AMENDED DEED OF EASEMENT, RECORDED AS INSTRUMENT NO. 201300274, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㉟ RIGHT OF WAY AGREEMENT GRANTED TO THE VIRGINIA ELECTRIC AND POWER COMPANY, A VIRGINIA PUBLIC SERVICE CORPORATION, DATED AS OF JUNE 29, 2015, RECORDED JULY 17, 2015 AS INSTRUMENT NO. 201501019, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㊱ TERMS AND CONDITIONS OF MEMORANDUM OF OPTION AGREEMENT FOR PURCHASE OF REAL PROPERTY AND PURCHASE AGREEMENT MADE BY AND BETWEEN APPOMATTOX COUNTY ECONOMIC DEVELOPMENT AUTHORITY AND ADP APPOMATTOX DATA HUB, LLC, A DELAWARE LIMITED LIABILITY COMPANY, DATED AS OF APRIL 19, 2024, RECORDED MAY 17, 2024 AS INSTRUMENT NO. 202400771, **AFFECTS THE SUBJECT PROPERTY, GENERAL IN NATURE, AGREEMENT, NOT PLOTTABLE.**

㊲ MATTERS AS SHOWN ON PLAT RECORDED IN PLAT CABINET I SLIDE 10, **AFFECTS THE SUBJECT PROPERTY, SHOWN.**

㊳ MATTERS AS SHOWN ON PLAT RECORDED IN PLAT CABINET 1 SLIDE 18E, **AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE EASEMENTS.**

㊴ RIGHTS OF UPPER AND LOWER RIPARIAN OWNERS IN AND TO THE UNINTERRUPTED FLOW OF THE CREEK OR STREAM RUNNING THROUGH OR ADJACENT TO THE LAND, **AFFECTS THE SUBJECT PROPERTY, GENERAL IN NATURE, NOT PLOTTABLE.**

㊵ ROLLBACK TAXES OR CHANGE IN USE TAXES, **NOT SURVEY RELATED.**

ZONING:

M-IP (PLANNED INDUSTRIAL DISTRICT)

MINIMUM SETBACK REQUIREMENTS

- FRONT YARD  
A. PRINCIPAL STRUCTURE: 30 FEET OR 20 FEET WHEN ALL PARKING IS BEHIND THE FRONT BUILDING LINE  
B. ACCESSORY STRUCTURE: BEHIND THE FRONT BUILDING LINE
- SIDE YARD  
A. PRINCIPAL STRUCTURE: 10 FEET  
B. ACCESSORY STRUCTURE: 3 FEET
- REAR YARD  
A. PRINCIPAL STRUCTURE: 10 FEET  
B. ACCESSORY STRUCTURE: 3 FEET
- WHERE A LOT FRONTS ON MORE THAN ONE STREET, FRONT YARD SETBACKS SHALL APPLY TO ALL STREETS.
- A. MAXIMUM HEIGHT OF STRUCTURES  
5. ALL STRUCTURES: 45 FEET. STRUCTURES MAY EXCEED THE HEIGHT LIMITATION PROVIDED A CONDITION<sup>69</sup> USE PERMIT IS APPROVED IN ACCORDANCE WITH THIS ORDINANCE.

SPECIAL REGULATIONS

- THE FOLLOWING REGULATIONS SHALL APPLY IN IP DISTRICTS:  
A. REQUIRED SETBACK AREAS AND OTHER OPEN AREAS NOT NEEDED FOR OPERATIONS SHALL BE LANDSCAPED AND SUCH LANDSCAPING SHALL BE MAINTAINED AT ALL TIMES.  
B. THE FOLLOWING BUFFER AREAS SHALL BE REQUIRED:  
I. A MINIMUM OF 75 FEET FROM ANY ADJOINING AGRICULTURAL, RESIDENTIAL, VILLAGE CENTER OR HISTORIC OVERLAY DISTRICT.  
II. A MINIMUM OF 20 FEET FROM ANY ADJOINING COMMERCIAL OR INDUSTRIAL DISTRICT.

ENCROACHMENT TABLE

A) FENCE ENCLOSES 11.1' ± AT ITS GREATEST POINT

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF APPOMATTOX, STATE OF VIRGINIA AND IS DESCRIBED AS FOLLOWS:

ALL THAT CERTAIN LOT, PIECE, OR PARCEL OF REAL ESTATE, LYING AND BEING IN THE SOUTHSIDE DISTRICT OF APPOMATTOX COUNTY, VIRGINIA, FRONTING ON S.R. 613 (COMMONLY KNOWN AS "POLICE TOWER ROAD"), S.R. 26, AND HAVING ACCESS TO HWY. 460, CONSISTING OF 574.33 ACRES BY THE PLAT OF SURVEY MADE BY WILLIAM W. DICKERSON, JR., DATED MAY 26, 1998, WHICH PLAT IS RECORDED IN PLAT CABINET 1 SLIDE 18E, AND INCORPORATED HEREIN BY REFERENCE FOR A MORE PARTICULAR DESCRIPTION OF THE PROPERTY TO BE CONVEYED.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 0.21 ACRE, CONVEYED TO PAYTON G. CUMBY AND JEAN M. CUMBY, HUSBAND AND WIFE, BY DEED OF BARGAIN AND SALE FROM INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, VIRGINIA, DATED OCTOBER 21, 1999 RECORDED NOVEMBER 15, 1999, IN DEED BOOK 258 PAGE 301.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 1.151 ACRES, CONVEYED TO COMMONWEALTH OF VIRGINIA, BY DEED OF BARGAIN AND SALE FROM INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, DATED APRIL 6, 2000 RECORDED APRIL 7, 2000, IN DEED BOOK 281 PAGE 696.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 5.43 ACRES, CONVEYED TO REVELY E. MARTIN AND TAMARA S. MARTIN, HUSBAND AND WIFE, BY DEED OF BARGAIN AND SALE FROM THE INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, DATED JULY 11, 2003, RECORDED JULY 14, 2003, AS INSTRUMENT NO. 200301818.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 12.58 ACRES, CONVEYED TO ROB OF LYNCHBURG, LLC, A VIRGINIA LIMITED LIABILITY COMPANY, BY DEED OF BARGAIN AND SALE FROM THE INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, DATED OCTOBER 9, 2005, RECORDED OCTOBER 11, 2005, AS INSTRUMENT NO. 200502461, AS SHOWN ON PLAT RECORDED IN PLAT CABINET 1 SLIDE 110G.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 0.03 ACRE, CONVEYED TO TSM PROPERTIES, LLC, A VIRGINIA LIMITED LIABILITY COMPANY, BY DEED OF GIFT FROM THE INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, VIRGINIA, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, DATED AUGUST 19, 2006, RECORDED OCTOBER 12, 2006, AS INSTRUMENT NO. 200602463.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 2.00 ACRES, CONVEYED TO PENELOPE HOLDINGS, LLC, BY DEED OF BARGAIN AND SALE FROM THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (FORMERLY KNOWN AS THE INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, VIRGINIA), A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, DATED SEPTEMBER 25, 2009, RECORDED OCTOBER 6, 2009, AS INSTRUMENT NO. 200902103, AS SHOWN ON PLAT RECORDED IN PLAT CABINET 1 SLIDE 158F.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 2.00 ACRES, CONVEYED TO DELTA RESPONSE TEAM, LLC, BY DEED FROM THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, FORMERLY INDUSTRIAL DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, DATED MAY 9, 2016, RECORDED MAY 9, 2016, AS INSTRUMENT NO. 201600665, AS SHOWN ON PLAT RECORDED IN PLAT CABINET 2 SLIDE 109C.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONTAINING 100.02 ACRES, CONVEYED TO APPOMATTOX COUNTY, VIRGINIA, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, BY DEED FROM THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY, VIRGINIA, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, DATED MARCH 28, 2022, RECORDED JUNE 9, 2022, AS INSTRUMENT NO. 202201257, AS SHOWN ON PLAT RECORDED IN PLAT CABINET 2 SLIDE 163F.

AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS, BASED UPON A CURRENT FIELD SURVEY, REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983, SOUTH ZONE:

BEGINNING AT AN IRON PIPE SET MARKING THE POINT OF INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LIMITS OF OAKVILLE ROAD, VA RTE. 26 WITH THE SOUTHERLY RIGHT-OF-WAY LIMITS OF INDUSTRIAL PARK LANE, VA RTE. 751, THENCE WITH SAID SOUTHERLY RIGHT-OF-WAY LIMITS OF OAKVILLE ROAD, VA RTE. 26:

S 35°02'59" E, PASSING A REBAR FOUND AT 12.74 FEET, 238.87 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID SOUTHERLY RIGHT-OF-WAY LIMITS WITH THE DIVISION LINE BETWEEN THE LANDS OF K.A. VIERS & L.A. MASON-VIERS (INSTRUMENT NO. 202401591), ON THE EAST AND THE LANDS OF ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST, THENCE WITH SAID DIVISION LINE :

S 49°28'21" W, 125.48 FEET TO A REBAR FOUND, THENCE CONTINUING WITH SAID DIVISION LINE AND WITH THE DIVISION LINE BETWEEN THE LANDS OF JULIA B. SMYSER (INSTRUMENT NO. 202200950 AND INSTRUMENT NO. 202200921), ON THE NORTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST, THENCE WITH SAID DIVISION LINE.

S 29°23'16" E, 383.80 FEET TO A REBAR FOUND THENCE CONTINUING WITH THE LAST- MENTIONED DIVISION LINE:

S 34°21'13" W, 212.08 FEET TO FEET TO REBAR FOUND MARKING THE WESTERLY RIGHT-OF-WAY LIMITS OF MCKENNA FRAH ROAD, VA RTE. 1029, THENCE WITH SAID WESTERLY RIGHT-OF-WAY LIMITS:

S 29°10'19" W, 41.48 FEET TO A REBAR FOUND MARKING THE MARKING THE POINT OF INTERSECTION OF SAID WESTERLY RIGHT-OF-WAY LIMITS WITH THE DIVISION LINE BETWEEN THE LANDS OF TAMMY M. CUMBY, ET AL'S (WILL INSTRUMENT NO. 201800585), ON THE EAST AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST, THENCE WITH SAID DIVISION LINE.

S 29°24'34" W, 83.42 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF ALFRED K. MOORE (INSTRUMENT NO. 20151041), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

N 59°31'06" W, 230.67 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 20°41'14" W, 149.88 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF ADAM MOORE (INSTRUMENT NO. 201500809 & INSTRUMENT NO. 201401750), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE, THE FOLLOWING SIX (6) COURSES AND DISTANCES:

N 58°08'37" W, 142.18 FEET TO AN IRON PIPE FOUND, THENCE CONTINUING:

S 38°56'10" W, 587.11 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 72°59'22" W, 266.43 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 74°22'45" W, 454.33 FEET TO A 36 INCH OAK TREE, THENCE CONTINUING:

S 14°48'12" E, 1122.73 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 48°21'23" E, 350.88 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF FREEDOM RIDGE LLC (20042165), ON THE EAST AND SAID LANDS OF ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST, THENCE WITH SAID DIVISION LINE, THE FOLLOWING THREE (3) COURSES AND DISTANCES:

S 50°16'29" W, 700.36 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 31°12'49" E, 542.13 FEET TO A REBAR FOUND, THENCE CONTINUING:

N 73°44'49" E, 20.70 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF THE ROSEMYR CORPORATION (INSTRUMENT NO. 20161678), ON THE NORTH AND THE SAID LANDS OF ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST, THENCE WITH SAID DIVISION LINE AND CONTINUING WITH THE DIVISION LINE BETWEEN THE LANDS OF A&S CARROLLTON HOTEL LLC (INSTRUMENT NO. 20081827), ON THE NORTH AND SAID LANDS OF ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE SOUTH:

S 31°12'41" E, 851.91 FEET TO A MAG NAIL FOUND IN THE NORTHERLY RIGHT-OF-WAY LIMITS OF RICHMOND HIGHWAY, U.S. RTE. 460, THENCE WITH SAID NORTHERLY RIGHT-OF-WAY LIMITS:

S 73°44'49" W, 58.48 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID RIGHT-OF-WAY LIMITS WITH THE DIVISION LINE BETWEEN THE LANDS OF THE SCRUOGS & SCRUOGS LLC (INSTRUMENT NO. 2014372), ON THE SOUTH AND THE SAID LANDS OF ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE AND CONTINUING WITH THE NORTHERLY BOUNDARY OF THE LANDS OF THE SHELIA M. ROYER REVOCABLE TRUST (INSTRUMENT NO. 20202039) AND THE NORTHERLY BOUNDARY OF THE LANDS OF CLAYTON C. BRYANT, JR. (INSTRUMENT NO. 20202039):

N 20°02'41" W, 32.20 FEET TO A POINT, THENCE CONTINUING:

N 31°12'41" W, 1238.18 FEET TO AN IRON PIPE FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF CLAYTON C. BRYANT, JR. (INSTRUMENT NO. 20202039), ON THE EAST AND SAID LANDS OF ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST, THENCE WITH SAID DIVISION LINE, THE FOLLOWING SIX (6) COURSES AND DISTANCES:

S 84°07'19" W, 88.04 FEE TO A POINT LYING S 231°03'59" W, 2.38 FEET FROM AN IRON PIPE FOUND, THENCE CONTINUING: <sup>267</sup>

S 51°08'29" W, 92.58 FEET TO A POINT, THENCE CONTINUING:

N 26°41'31" W, PASSING A REBAR FOUND AT 5.25 FEET, 40.00 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 42°50'45" W, 213.14 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 88°35'19" W, 217.44 FEET TO A POINT, THENCE CONTINUING:

S 22°52'51" E, PASSING A REBAR FOUND AT 19.92 FEET, 238.80 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF MOORE-WOLFS LLC (INSTRUMENT NO. 2017020), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE:

S 82°23'49" W, 266.40 FEET TO AN IRON PIPE SET, THENCE CONTINUING WITH SAID DIVISION LINE AND WITH THE DIVISION LINE BETWEEN THE LANDS OF RYAN B. FISCHER (INSTRUMENT NO. 20211295), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH:

N 74°24'01" W, 572.77 FEET TO AN IRON PIPE SET, THENCE CONTINUING WITH SAID DIVISION LINE AND CONTINUING WITH THE DIVISION LINE BETWEEN THE LANDS OF ROBERT VAUGHN REVOCABLE FAMILY TRUST & TERESA A. VAUGH (DEED BOOK 233 PAGE 768), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH:

N 79°25'51" W, 170.99 FEET TO A 36 IN. DEAD TREE WITH A NAIL MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE, WITH THE DIVISION LINE BETWEEN THE LANDS OF ROBERT F. WALTON (DEED BOOK 833 PAGE 243),

ON THE WEST AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE EAST, THENCE WITH SAID DIVISION LINE, THE FOLLOWING SEVEN (7) COURSES AND DISTANCES:

N 11°25'49" E, 231.71 FEET TO AN IRON PIPE SET, THENCE CONTINUING:

N 84°48'01" W, 204.38 FEET TO AN IRON PIPE SET, THENCE CONTINUING:

S 72°12'09" W, 158.16 FEET TO AN IRON PIPE SET, THENCE CONTINUING:

N 86°36'31" W, 287.55 FEET TO AN IRON PIPE SET, THENCE CONTINUING:

S 21°33'39" W, 110.71 FEET TO A REBAR FOUND, THENCE CONTINUING:

S 01°54'49" W, 279.22 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF ROBERT H. MARTIN, SR. (WILL BOOK 2006 PAGE 74), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE:

S 74°46'19" W, 105.75 FEET TO AN IRON PIPE SET MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF COURTLAND REALTY ASSOCIATES (INSTRUMENT NO. 20082504), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE AND CONTINUING WITH THE DIVISION LINE BETWEEN THE LANDS OF JOSHUA N. SPICER (INSTRUMENT NO. 20231751), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH:

N 50°18'01" W, 312.98 FEET TO AN IRON PIPE SET THENCE CONTINUING WITH THE LAST-MENTIONED DIVISION LINE AND WITH THE DIVISION LINE BETWEEN THE LANDS OF COURTLAND REALTY ASSOCIATES (INSTRUMENT NO. 20081443), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH:

N 39°46'41" W, 300.17 TO AN IRON PIPE SET THENCE CONTINUING WITH THE LAST-MENTIONED DIVISION LINE, THE FOLLOWING THREE (3) COURSES AND DISTANCES:

N 36°11'41" W, 108.46 FEET TO AN IRON PIPE SET, THENCE CONTINUING:

N 23°42'41" W, 297.85 FEET TO AN IRON PIPE SET THENCE CONTINUING:

N 21°07'41" W, 254.47 FEET TO A 1 IN. PIPE WITH A NAIL MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF DAVID S. BULLOCK & JESSICA D. BULLOCK (INSTRUMENT NO. 2010585), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE AND WITH THE DIVISION LINE BETWEEN THE LANDS OF DAVID C. SMATHERS & KAILYN N. MARTIN (INSTRUMENT NO. 20221332), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH:

N 81°54'31" W, PASSING A REBAR FOUND AT 790.50 FEET, 1504.89 FEET TO A REBAR FOUND, THENCE CONTINUING WITH THE LAST-MENTIONED DIVISION LINE AND WITH THE DIVISION LINE BETWEEN THE LANDS OF MATTHEW B & KARY A. FOSTERS (INSTRUMENT NO. 2017857), ON THE EAST AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE WEST:

S 03°45'51" E, 635.49 FEET TO A REBAR FOUND MARKING THE POINT OF INTERSECTION OF SAID DIVISION LINE WITH THE DIVISION LINE BETWEEN THE LANDS OF KENNETH L. & JANICE M. MARSTON (INSTRUMENT NO. 20061582), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH, THENCE WITH SAID DIVISION LINE AND WITH THE DIVISION LINE BETWEEN OTHER LANDS OF KENNETH L. & JANICE M. MARSTON (INSTRUMENT NO. 20042324), ON THE SOUTH AND SAID LANDS OF THE ECONOMIC DEVELOPMENT AUTHORITY OF APPOMATTOX COUNTY (DEED BOOK 246 PAGE 625), ON THE NORTH:

S 88°32'34" E, 816.21 FEET TO A

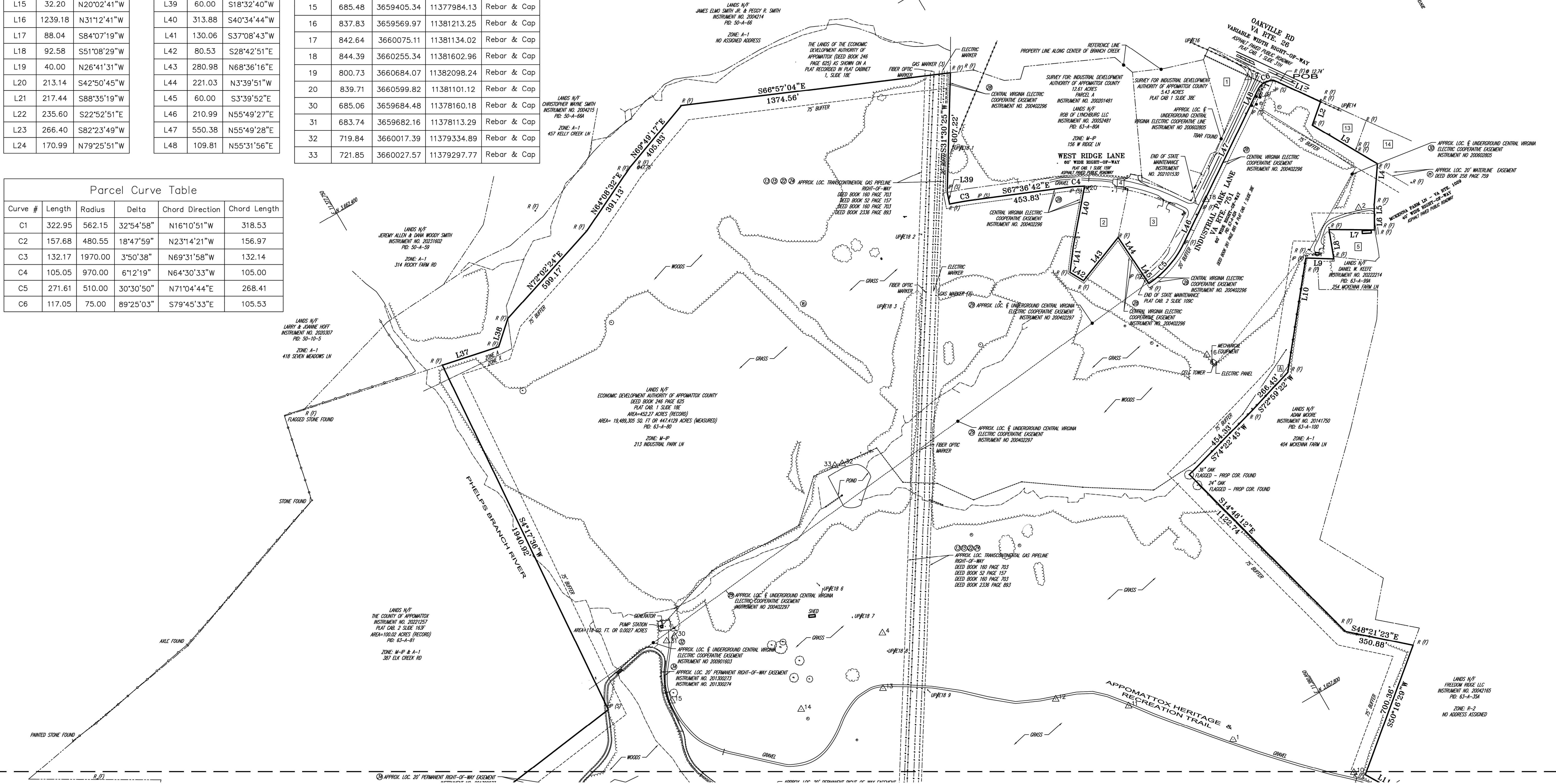


| Parcel Line Table |         |             |  |
|-------------------|---------|-------------|--|
| Line #            | Length  | Direction   |  |
| L1                | 238.67  | S35°02'59"E |  |
| L2                | 125.49  | S49°28'24"W |  |
| L3                | 383.80  | S29°23'16"E |  |
| L4                | 212.08  | S34°21'13"W |  |
| L5                | 41.48   | S29°10'19"W |  |
| L6                | 83.42   | S29°24'54"W |  |
| L7                | 230.67  | N59°31'06"W |  |
| L8                | 149.88  | S20°41'14"W |  |
| L9                | 142.18  | N58°08'37"W |  |
| L10               | 587.11  | S38°56'10"W |  |
| L11               | 542.13  | S31°12'49"E |  |
| L12               | 20.70   | N73°44'49"E |  |
| L13               | 851.91  | S31°12'41"E |  |
| L14               | 58.48   | S73°44'49"W |  |
| L15               | 32.20   | N20°02'41"W |  |
| L16               | 1239.18 | N31°12'41"W |  |
| L17               | 88.04   | S84°07'19"W |  |
| L18               | 92.58   | S51°08'29"W |  |
| L19               | 40.00   | N26°41'31"W |  |
| L20               | 213.14  | S42°50'45"W |  |
| L21               | 217.44  | S88°35'19"W |  |
| L22               | 235.60  | S22°52'51"E |  |
| L23               | 266.40  | S82°23'49"W |  |
| L24               | 170.99  | N79°25'51"W |  |

| Parcel Line Table |        |             |  |
|-------------------|--------|-------------|--|
| Line #            | Length | Direction   |  |
| L25               | 231.71 | N11°25'49"E |  |
| L26               | 204.38 | N84°48'01"W |  |
| L27               | 158.16 | S72°12'09"W |  |
| L28               | 287.55 | N86°36'31"W |  |
| L29               | 110.71 | S21°33'39"W |  |
| L30               | 279.22 | S1°54'49"W  |  |
| L31               | 105.75 | S74°46'19"W |  |
| L32               | 312.98 | N50°18'01"W |  |
| L33               | 300.17 | N39°46'41"W |  |
| L34               | 108.46 | N36°11'41"W |  |
| L35               | 297.85 | N23°42'41"W |  |
| L36               | 254.47 | N21°07'41"W |  |
| L37               | 300.03 | S78°01'23"E |  |
| L38               | 151.71 | N48°00'27"E |  |
| L39               | 60.00  | S18°32'40"W |  |
| L40               | 313.88 | S40°34'44"W |  |
| L41               | 130.06 | S37°08'43"W |  |
| L42               | 80.53  | S28°42'51"E |  |
| L43               | 280.98 | N68°36'16"E |  |
| L44               | 221.03 | N3°39'51"W  |  |
| L45               | 60.00  | S3°39'52"E  |  |
| L46               | 210.99 | N55°49'27"E |  |
| L47               | 550.38 | N55°49'28"E |  |
| L48               | 109.81 | N55°31'56"E |  |

| Survey Control |           |            |             |             |
|----------------|-----------|------------|-------------|-------------|
| Point #        | Elevation | Northing   | Easting     | Description |
| 1              | 796.15    | 3657812.06 | 11380351.59 | Rebar & Cap |
| 2              | 861.17    | 3659831.19 | 11382253.07 | Rebar & Cap |
| 3              | 797.40    | 3659236.87 | 11375332.48 | Rebar & Cap |
| 4              | 780.45    | 3659170.52 | 11379081.78 | Rebar & Cap |
| 5              | 789.17    | 3659479.15 | 11375619.38 | Rebar & Cap |
| 6              | 809.16    | 3658565.80 | 11375677.26 | Rebar & Cap |
| 7              | 817.33    | 3657808.17 | 11375718.83 | Rebar & Cap |
| 8              | 814.57    | 3656460.95 | 11381322.60 | Rebar & Cap |
| 9              | 766.86    | 3656930.83 | 11381044.49 | Rebar & Cap |
| 10             | 758.83    | 3657360.79 | 11380798.72 | Rebar & Cap |
| 11             | 788.01    | 3658224.83 | 11379978.11 | Rebar & Cap |
| 12             | 792.90    | 3658439.33 | 11379674.71 | Rebar & Cap |
| 13             | 746.02    | 3658924.25 | 11378942.74 | Rebar & Cap |
| 14             | 748.98    | 3659040.72 | 11378530.86 | Rebar & Cap |
| 15             | 685.48    | 3659405.34 | 11377984.13 | Rebar & Cap |
| 16             | 837.83    | 3659569.97 | 11381213.25 | Rebar & Cap |
| 17             | 842.64    | 3660075.11 | 11381134.02 | Rebar & Cap |
| 18             | 844.39    | 3660255.34 | 11381602.96 | Rebar & Cap |
| 19             | 800.73    | 3660684.07 | 11382098.24 | Rebar & Cap |
| 20             | 839.71    | 3660599.82 | 11381101.12 | Rebar & Cap |
| 30             | 685.06    | 3659684.48 | 11378160.18 | Rebar & Cap |
| 31             | 683.74    | 3659682.16 | 11378113.29 | Rebar & Cap |
| 32             | 719.84    | 3660017.39 | 11379334.89 | Rebar & Cap |
| 33             | 721.85    | 3660027.57 | 11379297.77 | Rebar & Cap |

| Parcel Curve Table |        |         |           |                 |              |
|--------------------|--------|---------|-----------|-----------------|--------------|
| Curve #            | Length | Radius  | Delta     | Chord Direction | Chord Length |
| C1                 | 322.95 | 562.15  | 32°54'58" | N16°10'51"W     | 318.53       |
| C2                 | 157.68 | 480.55  | 18°47'59" | N23°14'21"W     | 156.97       |
| C3                 | 132.17 | 1970.00 | 3°50'38"  | N69°31'58"W     | 132.14       |
| C4                 | 105.05 | 970.00  | 6°12'19"  | N64°30'33"W     | 105.00       |
| C5                 | 271.61 | 510.00  | 30°30'50" | N71°04'44"E     | 268.41       |
| C6                 | 117.05 | 75.00   | 89°25'03" | S79°45'33"E     | 105.53       |



MATCH LINE SEE SHEET 3 OF 3

#### OWNER INFORMATION

|    |                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                                                            |    |                                                                                                                                                                                                                                                                                                                                    |    |                                                                                                         |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------|
| 1  | SURVEY FOR INDUSTRIAL DEVELOPMENT<br>AUTHORITY OF APPOMATTOX COUNTY<br>1.151 ACRES<br>PLAT C&B 1 SLIDE 100E<br>NO OWNER INFORMATION AVAILABLE<br>LANDS N/F<br>ZZ R&Z LLC<br>INSTRUMENT NO. 20211530<br>PID: 63-A-82B<br>ZONE: M-IP<br>200 INDUSTRIAL PARK LN | 2  | SINGLE LOT DIVISION<br>SURVEY FOR ECONOMIC DEVELOPMENT<br>AUTHORITY OF APPOMATTOX COUNTY<br>2.880 ACRES<br>INSTRUMENT NO. 200802103<br>INSTRUMENT NO.201700885<br>PLAT C&B 2 SLIDE 100E<br>LANDS N/F<br>DELTA RESPONSE TEAM LLC<br>INSTRUMENT NO. 2016665<br>PID: 63-A-80C<br>ZONE: M-IP<br>175 W RIDGE LN | 3  | DIVISION & RIGHT-OF-WAY DEDICATION<br>PLAT OF THE PROPERTY OF ECONOMIC DEVELOPMENT<br>AUTHORITY OF APPOMATTOX COUNTY<br>2.000 ACRES<br>NEW LOT "A"<br>INSTRUMENT NO. 200802103<br>PLAT C&B 1 SLIDE 100E<br>LANDS N/F<br>FIDELITY HOLDINGS LLC<br>INSTRUMENT NO. 200802103<br>PID: 63-A-80B<br>ZONE: M-IP<br>288 INDUSTRIAL PARK LN | 13 | LANDS N/F<br>KISER A. WEISS<br>INSTRUMENT NO. 20241591<br>PID: 63-A-88<br>ZONE: R-1<br>1131 OAKVILLE RD |
| 4  | SURVEY FOR INDUSTRIAL DEVELOPMENT<br>AUTHORITY OF APPOMATTOX COUNTY<br>0.03 ACRES<br>PARCEL 2<br>INSTRUMENT NO. 200201481<br>INSTRUMENT NO. 200502493                                                                                                        | 5  | LANDS N/F<br>ALFRED K. MOORE<br>INSTRUMENT NO. 20151041<br>PID: 63-A-37<br>ZONE: R-1<br>212 MCKENNA FARM LN                                                                                                                                                                                                | 6  | LANDS N/F<br>FREEDOM RIDGE LLC<br>INSTRUMENT NO. 20042165<br>PID: 63-A-35A<br>ZONE: R-2<br>NO ADDRESS ASSIGNED                                                                                                                                                                                                                     | 14 | LANDS N/F<br>JULIA B. SAWYER<br>INSTRUMENT NO. 2022920<br>PID: 63-A-89<br>ZONE: R-1<br>1109 OAKVILLE RD |
| 7  | LANDS N/F<br>SOLVIGS & SCHROEDS LLC<br>INSTRUMENT NO. 2014372<br>PID: 63-A-32A<br>ZONE: B-2<br>7559 RICHMOND HWY                                                                                                                                             | 8  | LANDS N/F<br>SHERA M. ROYER REVOCABLE TRUST<br>INSTRUMENT NO. 2022310<br>PID: 63-A-52<br>ZONE: B-2<br>NO ADDRESS ASSIGNED                                                                                                                                                                                  | 9  | LANDS N/F<br>MOORE-HOLTE LLC<br>INSTRUMENT NO. 2017002<br>PID: 63-A-19<br>ZONE: R-1<br>NO ADDRESS ASSIGNED                                                                                                                                                                                                                         |    |                                                                                                         |
| 10 | LANDS N/F<br>NICHOLAS P. TORRENTS<br>INSTRUMENT NO. 20151436<br>PID: 63-A-19<br>ZONE: R-1<br>NO ADDRESS ASSIGNED                                                                                                                                             | 11 | LANDS N/F<br>BRANDON TREWEY<br>INSTRUMENT NO. 20220891<br>PID: 63-A-11<br>ZONE: R-1<br>NO ADDRESS ASSIGNED                                                                                                                                                                                                 | 12 | LANDS N/F<br>MOORE-HOLTE LLC<br>INSTRUMENT NO. 20220891<br>PID: 63-A-11<br>ZONE: R-1<br>319 MATTHEWS RD                                                                                                                                                                                                                            |    |                                                                                                         |

CHK: G.K.S.

DIS:

DWN: J.L.K.

REVISION

REVISED BOUNDARY

REVISED BOUNDARY

DATE: 10/28/24

BY: J.K.

ALTA NSPS LAND TITLE SURVEY

LANDS N/F

THE ECONOMIC DEVELOPMENT AUTHORITY OF

APPOMATTOX COUNTY

DEED BOOK 246 PAGE 625

INSTRUMENT NO. 201000156

SHRINE ELECTRIC COOPERATIVE EASEMENT

APPOMATTOX COUNTY, VIRGINIA

DATE: AUGUST 25, 2025

SCALE: 1" = 50'

Kimley»Horn

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11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191

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GRS GROUP, LLC

6703 DELAND COURT

SPRINGFIELD, VA 22152

TELE: 703-727-5828

FAX: 703-763-2320

email: grsgroup.llc@gmail.com

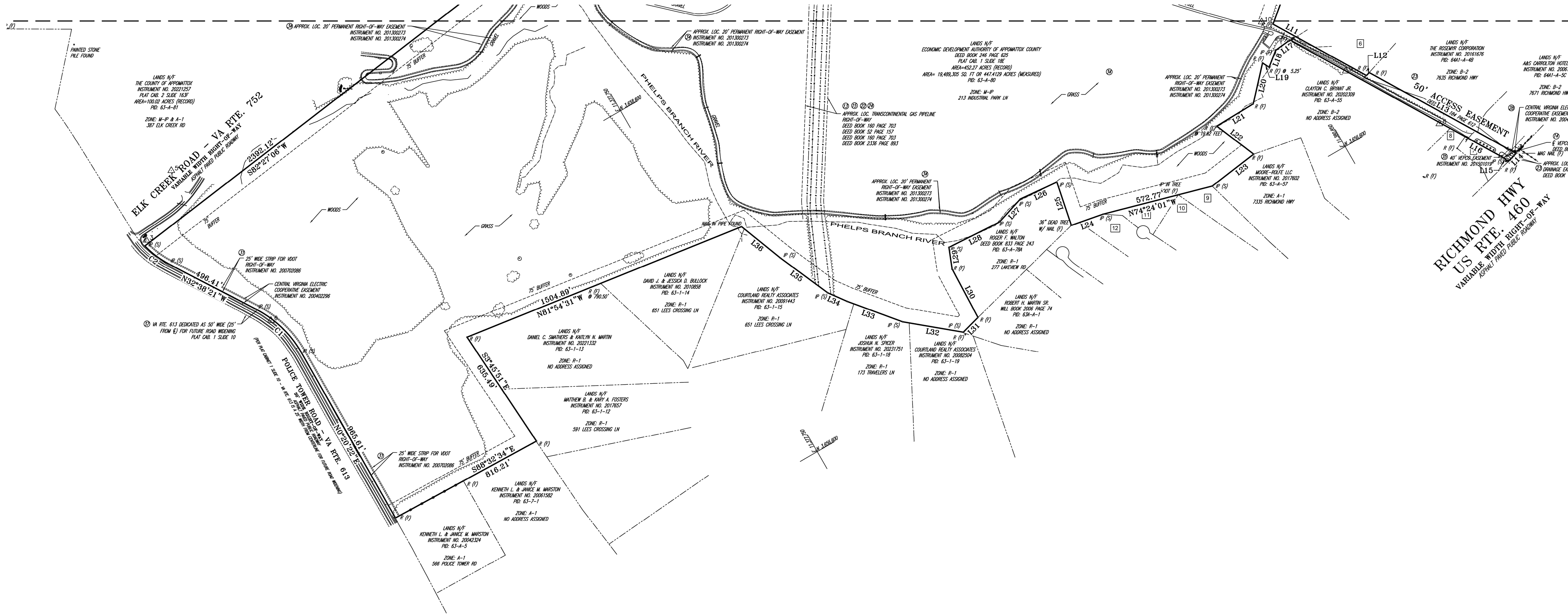
KH PROJECT NO.

113706001

SHEET 2 OF 3



MATCH LINE SEE SHEET 2 OF 3



| LEGEND |                                              |
|--------|----------------------------------------------|
|        | TOP OF CURB ELEVATION                        |
|        | FLOWLINE ELEVATION                           |
|        | EDGE OF PAVEMENT ELEVATION                   |
|        | SPOT ELEVATION                               |
|        | EXISTING CONTOUR                             |
|        | PROPERTY LINE                                |
|        | ADJOINING PROPERTY LINE                      |
|        | BUILDING W/ HATCH                            |
|        | APPROX. LOC. OVERHEAD WIRES                  |
|        | APPROX. LOC. UNDERGROUND NATURAL GAS SERVICE |
|        | APPROX. LOC. UNDERGROUND FIBER OPTIC         |
|        | APPROX. LOC. UNDERGROUND NATURAL ELECTRIC    |
|        | CHAIN LINK FENCE                             |
|        | WOOD OR VINYL FENCE                          |
|        | APPROX. LOC. STREAM CENTER                   |
|        | TREELINE                                     |
|        | CONCRETE                                     |
|        | RIP RAP                                      |
|        | TREE W/ SIZE                                 |
|        | STORM INLET RISER                            |
|        | WATER METER                                  |
|        | WATER VALVE                                  |
|        | FIRE HYDRANT                                 |
|        | SANITARY MANHOLE                             |
|        | CLEAN OUT                                    |
|        | GRATE INLET                                  |
|        | UTILITY POLE                                 |
|        | GUY WIRE                                     |
|        | TELEPHONE PEDESTAL                           |
|        | UTILITY COVER                                |
|        | ELECTRIC METER                               |
|        | TRANSFORMER                                  |
|        | MAIL BOX                                     |
|        | SIGN                                         |
|        | BOLLARD                                      |
|        | SURVEY CONTROL POINT                         |
|        | PAINTED ARROW                                |
|        | TITLE EXCEPTION                              |
|        | REBAR FOUND/SET                              |
|        | IRON PIPE FOUND/SET                          |

| REVISION |                  | DATE     | BY  |
|----------|------------------|----------|-----|
| CHK:     | REVISED BOUNDARY | 10/28/24 | JJK |
| GKS:     | REVISED BOUNDARY | 08/25/23 | JJK |
| DES:     |                  |          |     |
| DWN:     |                  |          |     |
| JJK      |                  |          |     |

SCALE: 1" = 50'

ALTA NSPS LAND TITLE SURVEY  
LANDS N/F  
THE ECONOMIC DEVELOPMENT AUTHORITY OF  
APOMATOX COUNTY  
DEED BOOK 246 PAGE 625  
INSTRUMENT NO. 201000156  
SHRIDE ELECTION DISTRICT  
APOMATOX COUNTY, VIRGINIA  
DATE: AUGUST 25, 2025

**Kimley»Horn**  
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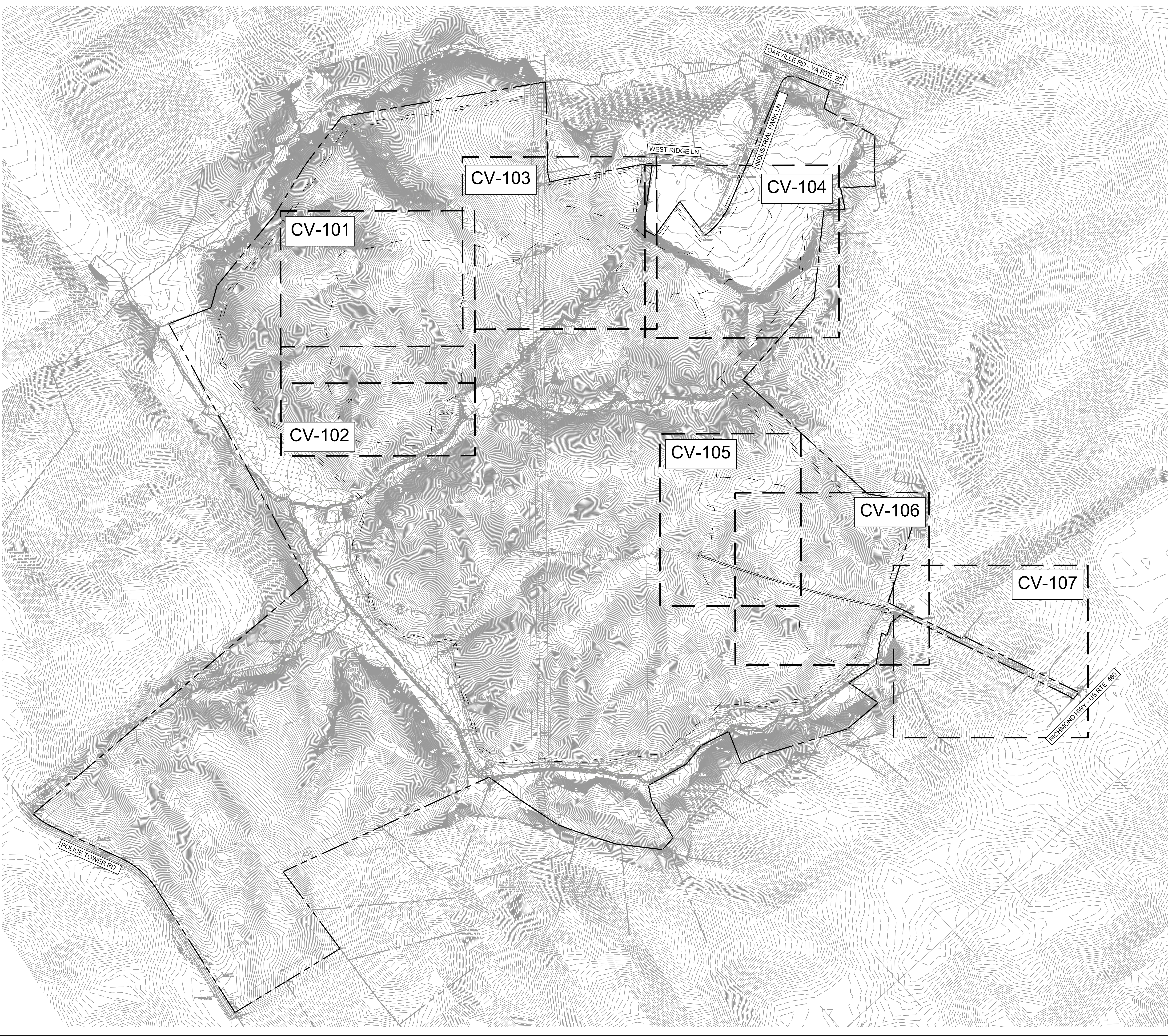
**GRS GROUP, LLC**  
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SPRINGFIELD, VA 22152  
TELE: 703-727-5828  
FAX: 703-763-2320  
email: grsgroup.llc@gmail.com

KH PROJECT NO.  
113706001

SHEET 3 OF 3



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CV-100 OVERALL EXISTING CONDITIONS & DEMOLITION PLAN November 05, 2025 04:11:52pm  
This document, together with the concepts and designs presented herein, is an instrument of service, intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



EXISTING CONDITIONS LEGEND

|                        |                                          |
|------------------------|------------------------------------------|
| × TC 262.83            | TOP OF CURB ELEVATION                    |
| × G 262.83             | FLOWLINE ELEVATION                       |
| × EP 262.83            | EDGE OF PAVEMENT ELEVATION               |
| × 262.83               | SPOT ELEVATION                           |
| — 262 —                | EXISTING CONTOUR                         |
| ---                    | APPROX. LOC. UNDERGROUND ELECTRIC        |
| .....                  | APPROX. LOC. UNDERGROUND WATER           |
| ---                    | APPROX. LOC. ATION UNDERGROUND TELEPHONE |
| ---                    | APPROX. LOC. UNDERGROUND GAS             |
| ---                    | APPROX. LOC. SEWER LINE                  |
| .....                  | OVERHEAD WIRES                           |
| ---                    | METAL OR WOOD FENCE                      |
| ---                    | CHAIN LINK FENCE                         |
| ---                    | WIRE FENCE                               |
| WV                     | WATER VALVE                              |
| WM                     | WATER METER                              |
| WMH                    | WATER MANHOLE                            |
| FH                     | FIRE HYDRANT                             |
| GV                     | GAS VALVE                                |
| GM                     | GAS METER                                |
| UP                     | UTILITY POLE                             |
| GW                     | GUY WIRE                                 |
| EM                     | ELECTRIC METER                           |
| EB                     | ELECTRIC BOX                             |
| TP                     | TELEPHONE PEDESTAL                       |
| TR                     | TRANSFORMER                              |
| S                      | SIGN                                     |
| B                      | BOLLARD                                  |
| WETLANDS               |                                          |
| TREE (W/SIZE)          |                                          |
| BUSH                   |                                          |
| TREE LINE              |                                          |
| GRATE INLET            |                                          |
| STORM MANHOLE          |                                          |
| SANITARY MANHOLE       |                                          |
| TELEPHONE MANHOLE      |                                          |
| ELECTRIC MANHOLE       |                                          |
| CLEAN OUT              |                                          |
| ROOF DRAIN             |                                          |
| DENOTES PARKING COUNT  |                                          |
| TITLE EXCEPTION        |                                          |
| BENCHMARK              |                                          |
| PAINTED ARROWS         |                                          |
| WHEEL STOP             |                                          |
| HANDICAP PARKING       |                                          |
| MONITORING WELL        |                                          |
| U BOLLARD              |                                          |
| STOP BAR               |                                          |
| SOIL BORING            |                                          |
| 20' BELL               |                                          |
| CENTERLINE             |                                          |
| EASEMENT LINE          |                                          |
| MAJOR CONTOUR          |                                          |
| MINOR CONTOUR          |                                          |
| BUILDING WITH HATCH    |                                          |
| PROPERTY LINE          |                                          |
| ADJACENT PROPERTY LINE |                                          |

DEMOLITION LEGEND

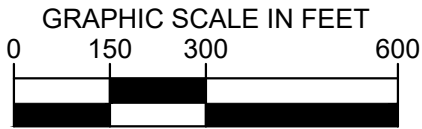
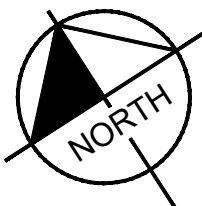
|         |                                                      |
|---------|------------------------------------------------------|
| ---     | LIMITS OF DISTURBANCE                                |
| ⊗       | TREE TO BE REMOVED                                   |
| ---     | EXISTING UTILITIES TO BE REMOVED OR RELOCATED        |
| ---     | ASPHALT SAWCUT LINE                                  |
| -X-X-X- | EXISTING CURB TO BE REMOVED                          |
| ---     | EXISTING VEGETATION TO BE CLEARED AND GRUBBED        |
| ---     | EXISTING ACCESS ROAD OR ASPHALT/GRAVEL TO BE REMOVED |

DEMOLITION NOTES

- THIS EXISTING CONDITION/DEMOLITION PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION AND FOR THE DEMOLITION, REMOVAL, OR RELOCATION OF ITEMS IN CONFLICT WITH THE PROPOSED CONSTRUCTION.

SURVEY NOTES

- FIELD SURVEY PREPARED BY GRS GROUP, LLC SEPTEMBER 3, 2024 THROUGH SEPTEMBER 21, 2024
- WETLAND DELINEATION BY KIMLEY-HORN, MAY 13, 2025



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6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230  
PHONE: 804-673-8882  
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COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

OVERALL EXISTING CONDITIONS & DEMOLITION PLAN

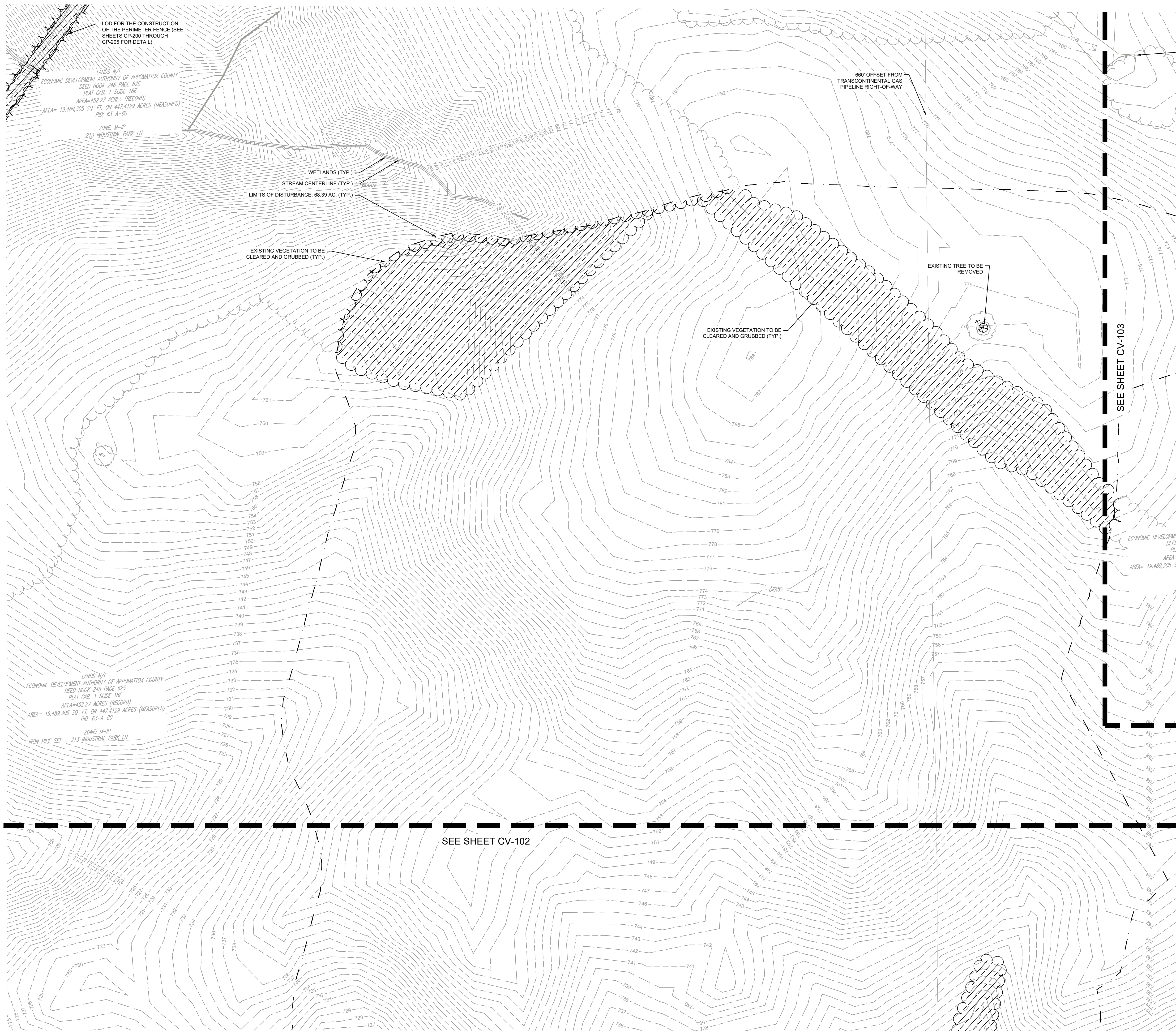
PROJECT HERCULES

APPOMATTOX COUNTY

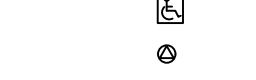
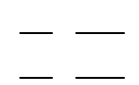
SHEET NUMBER

CV-100

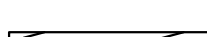




## EXISTING CONDITIONS LEGEND

|                                                                                       |                                          |
|---------------------------------------------------------------------------------------|------------------------------------------|
| x TC 262.83                                                                           | TOP OF CURB ELEVATION                    |
| x C 262.83                                                                            | FLOWLINE ELEVATION                       |
| x EP 262.83                                                                           | EDGE OF PAVEMENT ELEVATION               |
| x 262.83                                                                              | SPOT ELEVATION                           |
| — 262 —                                                                               | EXISTING CONTOUR                         |
| — — — — —                                                                             | APPROX. LOC. UNDERGROUND ELECTRIC        |
| . . . . .                                                                             | APPROX. LOC. UNDERGROUND WATER           |
| — — — — — FD                                                                          | APPROX. LOC. ATION UNDERGROUND TELEPHONE |
| — — — — — GAS                                                                         | APPROX. LOC. UNDERGROUND GAS             |
| — — — — —                                                                             | APPROX. LOC. SEWER LINE                  |
| . . . . .                                                                             | OVERHEAD WIRES                           |
| — — — — —                                                                             | METAL OR WOOD FENCE                      |
| — — — — —                                                                             | CHAIN LINK FENCE                         |
| — — — — —                                                                             | WIRE FENCE                               |
|    | WATER VALVE                              |
|    | WATER METER                              |
|    | WATER MANHOLE                            |
|    | FIRE HYDRANT                             |
|    | GAS VALVE                                |
|    | GAS METER                                |
|    | UTILITY POLE                             |
|    | GUY WIRE                                 |
|    | ELECTRIC METER                           |
|    | ELECTRIC BOX                             |
|    | TELEPHONE PEDESTAL                       |
|    | TRANSFORMER                              |
|    | SIGN                                     |
|    | BOLLARD                                  |
|    | WETLANDS                                 |
|    | TREE (WISIZE)                            |
|    | BUSH                                     |
|    | TREE LINE                                |
|    | GRATE INLET                              |
|    | STORM MANHOLE                            |
|    | SANITARY MANHOLE                         |
|    | TELEPHONE MANHOLE                        |
|    | ELECTRIC MANHOLE                         |
|    | CLEAN OUT                                |
|    | ROOF DRAIN                               |
|    | DENOTES PARKING COUNT                    |
|    | TITLE EXCEPTION                          |
|    | BENCHMARK                                |
|   | PAINTED ARROWS                           |
|  | WHEEL STOP                               |
|  | HANDICAP PARKING                         |
|  | MONITORING WELL                          |
|  | U BOLLARD                                |
|  | STOP BAR                                 |
|  | SOIL BORING                              |
| — — — — — 20' R/L                                                                     |                                          |
| — — — — — CENTERLINE                                                                  |                                          |
| — — — — — EASEMENT LINE                                                               |                                          |
| — — — — — MAJOR CONTOUR                                                               |                                          |
| — — — — — MINOR CONTOUR                                                               |                                          |
| — — — — — BUILDING WITH HATCH                                                         |                                          |
| — — — — — PROPERTY LINE                                                               |                                          |
| — — — — — ADJOINER PROPERTY LINE                                                      |                                          |

### DEMOLITION LEGEND

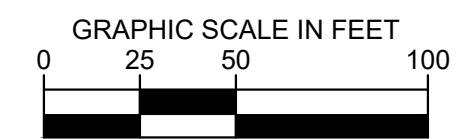
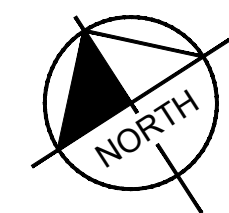
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|---------------------------------------------------------------------------------------|------------------------------------------------------|
|  | LIMITS OF DISTURBANCE                                |
|  | TREE TO BE REMOVED                                   |
|  | EXISTING UTILITIES TO BE REMOVED OR RELOCATED        |
|  | ASPHALT SAWCUT LINE                                  |
|  | EXISTING CURB TO BE REMOVED                          |
|  | EXISTING VEGETATION TO BE CLEARED AND GRUBBED        |
|  | EXISTING ACCESS ROAD OR ASPHALT/GRAVEL TO BE REMOVED |

**DEMOLITION NOTES**

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**SURVEY NOTES**

1. FIELD SURVEY PREPARED BY GRS GROUP, LLC SEPTEMBER 3, 2024 THROUGH SEPTEMBER 21, 2024.
2. WETLAND DELINEATION BY KIMLEY-HORN, MAY 13, 2025





Plotted By:McGray, Stephen Sheet Set:Kha Layout:CV-102 EXISTING CONDITIONS & DEMOLITION PLAN November 05, 2025 04:12:39pm  
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EXISTING CONDITIONS LEGEND

- × TC 262.83 TOP OF CURB ELEVATION
- × G 262.83 FLOWLINE ELEVATION
- × EP 262.83 EDGE OF PAVEMENT ELEVATION
- × 262.83 SPOT ELEVATION
- 262 — EXISTING CONTOUR
- — — — — APPROX. LOC. UNDERGROUND ELECTRIC
- · · · · APPROX. LOC. UNDERGROUND WATER
- FO — APPROX. LOC. ATION UNDERGROUND TELEPHONE
- GAS — APPROX. LOC. UNDERGROUND GAS
- — — — — APPROX. LOC. SEWER LINE
- · · · · OVERHEAD WIRES
- — — — — METAL OR WOOD FENCE
- — — — — CHAIN LINK FENCE
- — — — — WIRE FENCE
- WV WATER VALVE
- WM WATER METER
- WMH WATER MANHOLE
- FH FIRE HYDRANT
- GV GAS VALVE
- GM GAS METER
- UP UTILITY POLE
- GW GUY WIRE
- EM ELECTRIC METER
- EB ELECTRIC BOX
- TP TELEPHONE PEDESTAL
- TR TRANSFORMER
- S SIGN
- B BOLLARD
- WETLANDS

- TREE (W/SIZE)
- BUSH
- TREE LINE
- GRATE INLET
- STORM MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- CLEAN OUT
- ROOF DRAIN
- DENOTES PARKING COUNT
- TITLE EXCEPTION
- BENCHMARK
- PAINTED ARROWS
- WHEEL STOP
- HANDICAP PARKING
- MONITORING WELL
- U BOLLARD
- STOP BAR
- SOIL BORING
- 20\"/>
- CENTERLINE
- EASEMENT LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- BUILDING WITH HATCH
- PROPERTY LINE
- ADJACENT PROPERTY LINE

DEMOLITION LEGEND

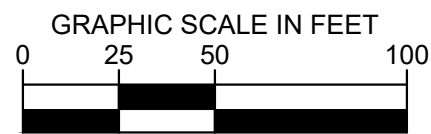
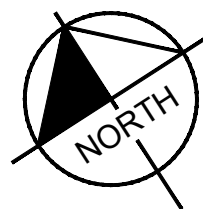
- LIMITS OF DISTURBANCE
- TREE TO BE REMOVED
- EXISTING UTILITIES TO BE REMOVED OR RELOCATED
- ASPHALT SAWCUT LINE
- EXISTING CURB TO BE REMOVED
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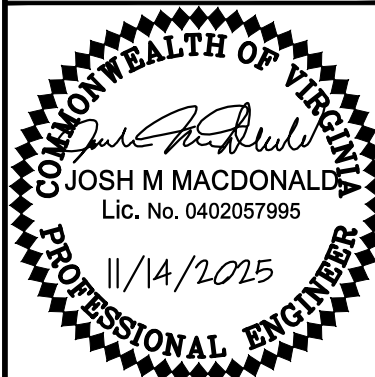
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Jacobs

Kimley»Horn  
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6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230  
PHONE: 804-673-8882  
WWW.KIMLEY-HORN.COM



|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
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EXISTING  
CONDITIONS &  
DEMOLITION PLAN

PROJECT HERCULES

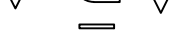
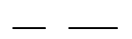
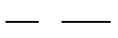
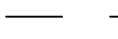
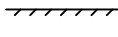
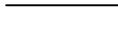
SHEET NUMBER  
CV-102

VA

APPOMATTOX COUNTY



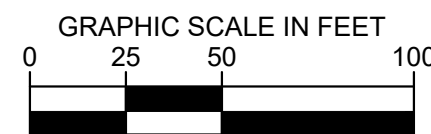


- |                                                                                       |                         |
|---------------------------------------------------------------------------------------|-------------------------|
|    | TREE (W/SIDE)           |
|    | BUSH                    |
|    | TREE LINE               |
|    | GRATE INLET             |
|    | STORM MANHOLE           |
|    | SANITARY MANHOLE        |
|    | TELEPHONE MANHOLE       |
|    | ELECTRIC MANHOLE        |
|    | CLEAN OUT               |
|    | ROOF DRAIN              |
|    | DENOTES PARKING COUNTRY |
|    | TITLE EXCEPTION         |
|    | BENCHMARK               |
|    | PAINTED ARROWS          |
|    | WHEEL STOP              |
|   | HANDICAP PARKING        |
|  | MONITORING WELL         |
|  | U BOLLARD               |
|  | STOP BAR                |
|  | SOIL BORING             |
|  | 20" B.L.                |
|  | <u>CENTERLINE</u>       |
|  | <u>EASEMENT LINE</u>    |
|  | MAJOR CONTOUR           |
|  | MINOR CONTOUR           |
|  | BUILDING WITH HATCH     |
|  | PROPERTY LINE           |
|  | ADJOINER                |
|  | PROPRIETY LINE          |

|                                                                                       |                                                         |
|---------------------------------------------------------------------------------------|---------------------------------------------------------|
|  | LIMITS OF DISTURBANCE                                   |
|  | TREE TO BE REMOVED                                      |
|  | EXISTING UTILITIES TO BE REMOVED OR<br>RELOCATED        |
|  | ASPHALT SAWCUT LINE                                     |
|  | EXISTING CURB TO BE REMOVED                             |
|  | EXISTING VEGETATION TO BE CLEARED<br>AND GRUBBED        |
|  | EXISTING ACCESS ROAD OR<br>ASPHALT/GRAVEL TO BE REMOVED |

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2. WETLAND DELINEATION BY KIMLEY-HORN, MAY 13, 2025



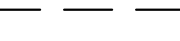
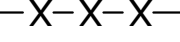
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| KHA PROJECT<br>113706001 | DATE<br>11/14/2025 | SCALE AS SHOWN | DESIGNED BY STM | DRAWN BY STM | CHECKED BY JMM |
|--------------------------|--------------------|----------------|-----------------|--------------|----------------|

# EXISTING CONDITIONS & DEMOLITION PLAN





|                                                                                     |                        |
|-------------------------------------------------------------------------------------|------------------------|
|  | WETLANDS               |
|  | TREE (W/SIZE)          |
|  | BUSH                   |
|  | TREE LINE              |
|  | GRATE INLET            |
|  | STORM MANHOLE          |
|  | SANITARY MANHOLE       |
|  | TELEPHONE MANHOLE      |
|  | ELECTRIC MANHOLE       |
|  | CLEAN OUT              |
|  | ROOF DRAIN             |
|  | DENOTES PARKING COUNT  |
|  | TITLE EXCEPTION        |
|  | BENCHMARK              |
|  | PAINTED ARROWS         |
|  | WHEEL STOP             |
|  | HANDICAP PARKING       |
|  | MONITORING WELL        |
|  | U BOLLARD              |
|  | STOP BAR               |
|  | SOLE BORING            |
|  | ONLY STOP              |
|  | CENTERLINE             |
|  | EASEMENT LINE          |
|  | MAJOR CONTOUR          |
|  | MINOR CONTOUR          |
|  | BUILDING WITH HATCH    |
|  | PROPERTY LINE          |
|  | ADJACENT PROPERTY LINE |

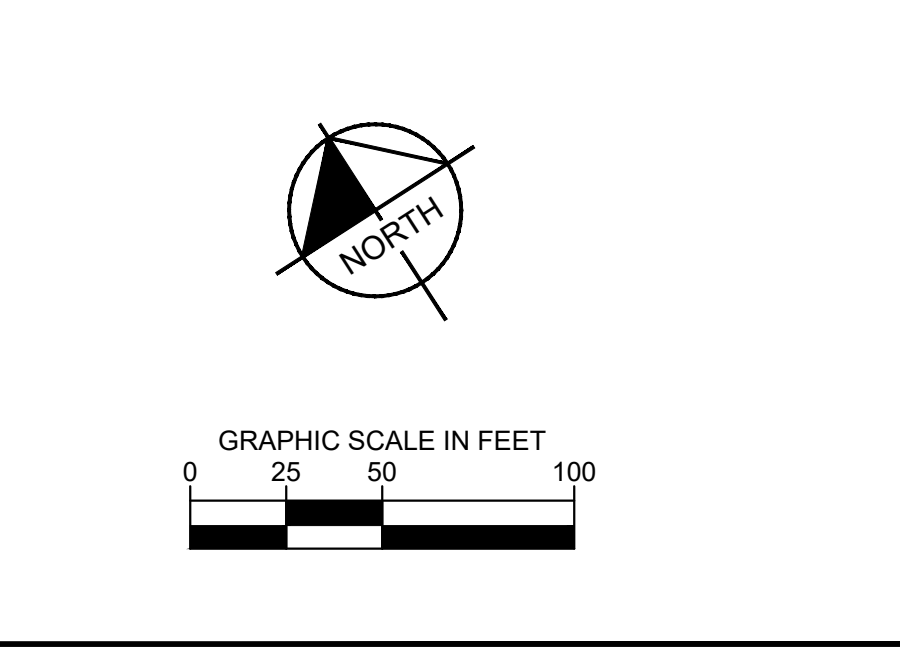
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|---------------------------------------------------------------------------------------|------------------------------------------------------|
| <b><u>DEMOLITION LEGEND</u></b>                                                       |                                                      |
|  | LIMITS OF DISTURBANCE                                |
|  | TREE TO BE REMOVED                                   |
|  | EXISTING UTILITIES TO BE REMOVED OR RELOCATED        |
|  | ASPHALT SAWCUT LINE                                  |
|  | EXISTING CURB TO BE REMOVED                          |
|  | EXISTING VEGETATION TO BE CLEARED AND GRUBBED        |
|  | EXISTING ACCESS ROAD OR ASPHALT/GRAVEL TO BE REMOVED |

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## **SURVEY NOTES**

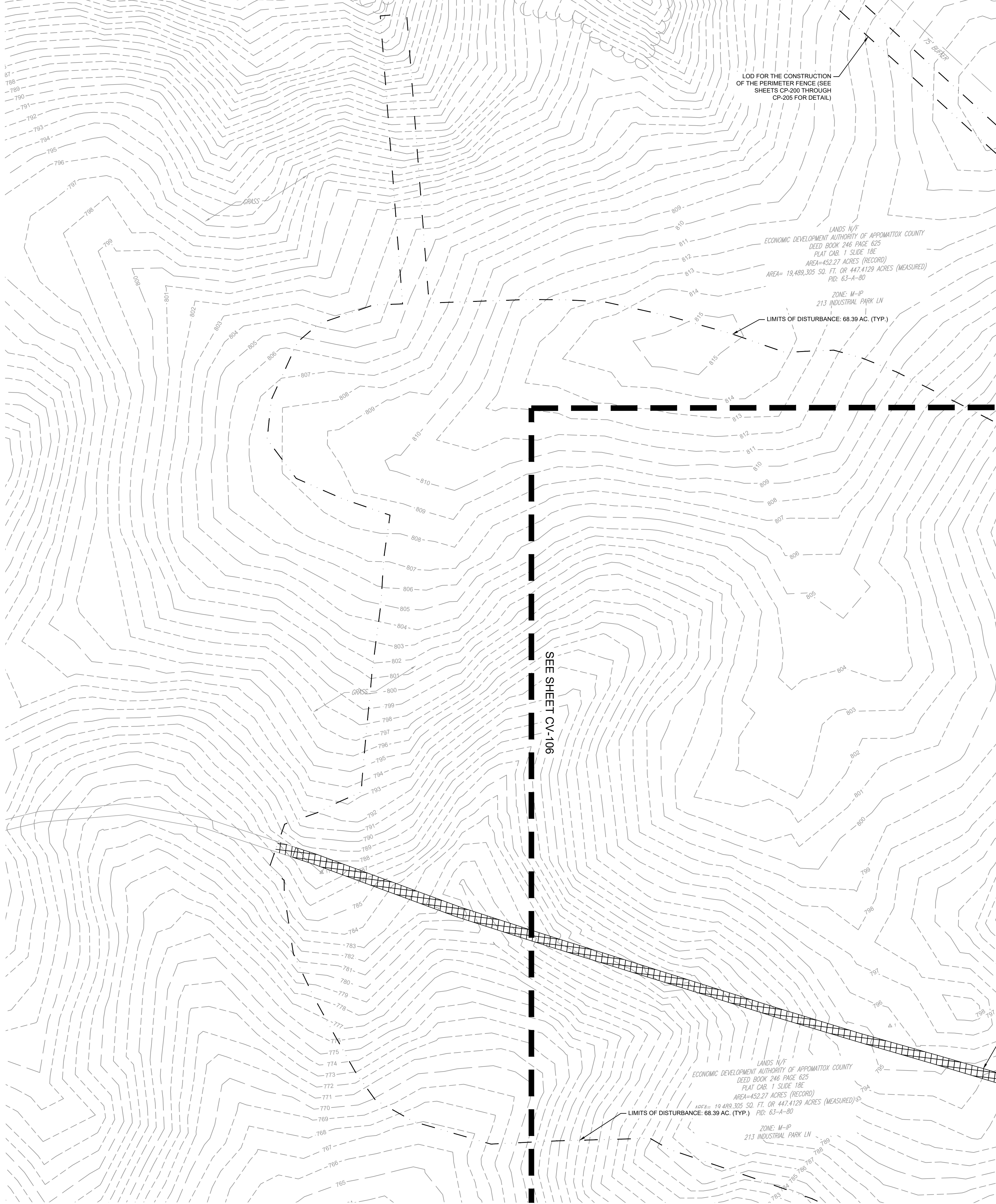
1. FIELD SURVEY PREPARED BY GRS GROUP, LLC SEPTEMBER 3, 2024 THROUGH SEPTEMBER 21, 2024.
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|                               |                                                   |                                                     |  |                                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                  |                          |                                                   |  |  |  |  |  |                                                                                                                                                                  |  |  |  |                    |  |                |  |                 |  |              |  |                |  |  |  |
|-------------------------------|---------------------------------------------------|-----------------------------------------------------|--|---------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------|--|--|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------|--|----------------|--|-----------------|--|--------------|--|----------------|--|--|--|
| SHEET NUMBER<br><b>CV-104</b> |                                                   | PROJECT HERCULES<br><br>APPOMATTOX COUNTY<br><br>VA |  | EXISTING<br>CONDITIONS &<br>DEMOLITION PLAN |  | <table border="1"> <tr> <td>KHA PROJECT<br/>113706001</td> <td colspan="2">COMMONWEALTH OF VIRGINIA<br/>PROFESSIONAL ENGINEER</td> <td colspan="2"> </td> <td colspan="2"> </td> <td colspan="2"> <b>Kimley-Horn</b><br/> © 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br/> 6606 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br/> PHONE: 804-673-3882<br/> WWW.KIMLEY-HORN.COM </td> <td colspan="2"> </td> </tr> <tr> <td colspan="2">DATE<br/>11/14/2025</td> <td colspan="2">SCALE AS SHOWN</td> <td colspan="2">DESIGNED BY STM</td> <td colspan="2">DRAWN BY STM</td> <td colspan="2">CHECKED BY JMM</td> <td colspan="2"></td> </tr> </table> |                                                                                                                                                                  | KHA PROJECT<br>113706001 | COMMONWEALTH OF VIRGINIA<br>PROFESSIONAL ENGINEER |  |  |  |  |  | <b>Kimley-Horn</b><br>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br>6606 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br>PHONE: 804-673-3882<br>WWW.KIMLEY-HORN.COM |  |  |  | DATE<br>11/14/2025 |  | SCALE AS SHOWN |  | DESIGNED BY STM |  | DRAWN BY STM |  | CHECKED BY JMM |  |  |  |
| KHA PROJECT<br>113706001      | COMMONWEALTH OF VIRGINIA<br>PROFESSIONAL ENGINEER |                                                     |  |                                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Kimley-Horn</b><br>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br>6606 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br>PHONE: 804-673-3882<br>WWW.KIMLEY-HORN.COM |                          |                                                   |  |  |  |  |  |                                                                                                                                                                  |  |  |  |                    |  |                |  |                 |  |              |  |                |  |  |  |
| DATE<br>11/14/2025            |                                                   | SCALE AS SHOWN                                      |  | DESIGNED BY STM                             |  | DRAWN BY STM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                  | CHECKED BY JMM           |                                                   |  |  |  |  |  |                                                                                                                                                                  |  |  |  |                    |  |                |  |                 |  |              |  |                |  |  |  |



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CV-105 EXISTING CONDITIONS & DEMOLITION PLAN November 05, 2025 04:13:55pm  
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#### EXISTING CONDITIONS LEGEND

- × TC 262.83 TOP OF CURB ELEVATION
- × G 262.83 FLOWLINE ELEVATION
- × EP 262.83 EDGE OF PAVEMENT ELEVATION
- × 262.83 SPOT ELEVATION
- 262 --- EXISTING CONTOUR
- APPROX. LOC. UNDERGROUND ELECTRIC
- APPROX. LOC. UNDERGROUND WATER
- FD --- APPROX. LOC. ATION UNDERGROUND TELEPHONE
- GAS --- APPROX. LOC. UNDERGROUND GAS
- APPROX. LOC. SEWER LINE
- OVERHEAD WIRES
- METAL OR WOOD FENCE
- CHAIN LINK FENCE
- WIRE FENCE
- WATER VALVE
- WATER METER
- WATER MANHOLE
- FIRE HYDRANT
- GAS VALVE
- GAS METER
- UTILITY POLE
- GUY WIRE
- ELECTRIC METER
- ELECTRIC BOX
- TELEPHONE PEDESTAL
- TRANSFORMER
- SIGN
- BOLLARD

#### WETLANDS

- TREE (W/SIZE)
- BUSH
- TREE LINE
- GRATE INLET
- STORM MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- CLEAN OUT
- ROOF DRAIN
- DENOTES PARKING COUNT
- TITLE EXCEPTION
- BENCHMARK
- PAINTED ARROWS
- WHEEL STOP
- HANDICAP PARKING
- MONITORING WELL
- U BOLLARD
- STOP BAR
- SOIL BORING
- 20' B/L
- CENTERLINE
- EASEMENT LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- BUILDING WITH HATCH
- PROPERTY LINE
- ADJACENT PROPERTY LINE

#### DEMOLITION LEGEND

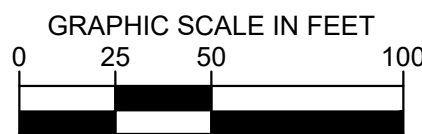
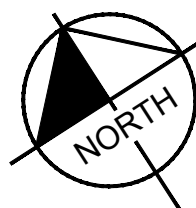
- LIMITS OF DISTURBANCE
- TREE TO BE REMOVED
- EXISTING UTILITIES TO BE REMOVED OR RELOCATED
- ASPHALT SAWCUT LINE
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|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

EXISTING  
CONDITIONS &  
DEMOLITION PLAN

PROJECT HERCULES

APPOMATTOX COUNTY

VA

SHEET NUMBER  
CV-105





|                                                                                       |                        |
|---------------------------------------------------------------------------------------|------------------------|
|    | TREE (W/IZE)           |
|    | BUSH                   |
|    | TREE LINE              |
|    | GRATE INLET            |
|    | STORM MANHOLE          |
|    | SANITARY MANHOLE       |
|    | TELEPHONE MANHOLE      |
|    | ELECTRIC MANHOLE       |
|    | CLEAN OUT              |
|    | ROOF DRAIN             |
|    | DENOTES PARKING ZONE   |
|    | TITLE EXCEPTION        |
|    | BENCHMARK              |
|    | PAINTED ARROWS         |
|   | WHEEL STOP             |
|  | HANDICAP PARKING       |
|  | MONITORING WELL        |
|  | U BOLLARD              |
|  | STOP BAR               |
|  | SOIL BORING            |
|  | ZONING                 |
|  | CENTERLINE             |
|  | EASEMENT LINE          |
|  | MAJOR CONTOUR          |
|  | MINOR CONTOUR          |
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|  | PROPERTY LINE          |
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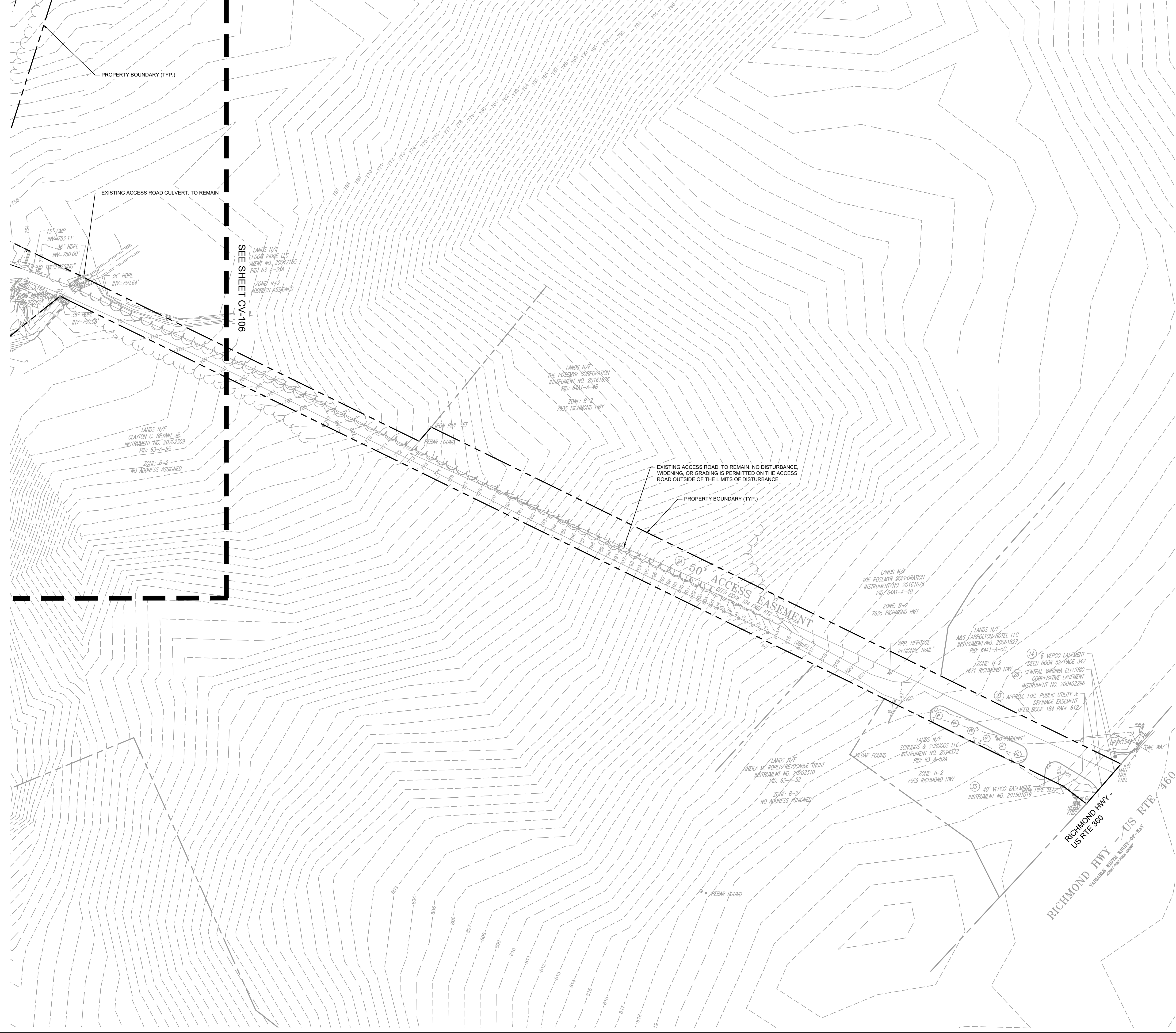
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1. FIELD SURVEY PREPARED BY GRS GROUP, LLC SEPTEMBER 3, 2024 THROUGH SEPTEMBER 21, 2024.
2. WETLAND DELINEATION BY KIMLEY-HORN, MAY 13, 2025

A compass rose with a circle and four lines representing North, South, East, and West. The word "NORTH" is written near the top. A shaded sector is located between the North line and the East line.



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CV-107 EXISTING CONDITIONS & DEMOLITION PLAN November 05, 2025 04:14:44pm  
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EXISTING CONDITIONS LEGEND

- × TC 262.83 TOP OF CURB ELEVATION
- × G 262.83 FLOWLINE ELEVATION
- × EP 262.83 EDGE OF PAVEMENT ELEVATION
- × 262.83 SPOT ELEVATION
- 262 — EXISTING CONTOUR
- — — — — APPROX. LOC. UNDERGROUND ELECTRIC
- · — · — — APPROX. LOC. UNDERGROUND WATER
- FG — — — — — APPROX. LOC. ATION UNDERGROUND TELEPHONE
- GAS — — — — — APPROX. LOC. UNDERGROUND GAS
- — — — — APPROX. LOC. SEWER LINE
- · — · — — OVERHEAD WIRES
- — — — — METAL OR WOOD FENCE
- — — — — CHAIN LINK FENCE
- — — — — WIRE FENCE
- ⊕ WATER VALVE
- ⊕ WATER METER
- ⊕ WATER MANHOLE
- ⊕ FIRE HYDRANT
- ⊕ GAS VALVE
- ⊕ GAS METER
- ⊕ UTILITY POLE
- ⊕ GUY WIRE
- ⊕ ELECTRIC METER
- ⊕ ELECTRIC BOX
- ⊕ TELEPHONE PEDESTAL
- ⊕ TRANSFORMER
- ⊕ SIGN
- ⊕ BOLLARD

WETLANDS

- ⊕ TREE (W/SIZE)
- ⊕ BUSH
- ⊕ TREE LINE
- ⊕ GRATE INLET
- ⊕ STORM MANHOLE
- ⊕ SANITARY MANHOLE
- ⊕ TELEPHONE MANHOLE
- ⊕ ELECTRIC MANHOLE
- ⊕ CLEAN OUT
- ⊕ ROOF DRAIN
- ⊕ DENOTES PARKING COUNT
- ⊕ TITLE EXCEPTION
- ⊕ BENCHMARK
- ⊕ PAINTED ARROWS
- ⊕ WHEEL STOP
- ⊕ HANDICAP PARKING
- ⊕ MONITORING WELL
- ⊕ U BOLLARD
- ⊕ STOP BAR
- ⊕ SOIL BORING

- — — — — CENTERLINE
- — — — — EASEMENT LINE
- — — — — MAJOR CONTOUR
- — — — — MINOR CONTOUR
- — — — — BUILDING WITH HATCH
- — — — — PROPERTY LINE
- — — — — ADJACENT PROPERTY LINE

DEMOLITION LEGEND

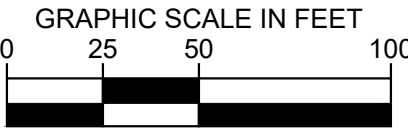
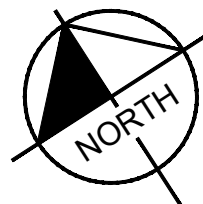
- ⊗ LIMITS OF DISTURBANCE
- ⊗ TREE TO BE REMOVED
- ⊗ EXISTING UTILITIES TO BE REMOVED OR RELOCATED
- ⊗ ASPHALT SAWCUT LINE
- ⊗ EXISTING CURB TO BE REMOVED
- ⊗ EXISTING VEGETATION TO BE CLEARED AND GRUBBED
- ⊗ EXISTING ACCESS ROAD OR ASPHALT/GRAVEL TO BE REMOVED

DEMOLITION NOTES

- THIS EXISTING CONDITION/DEMOLITION PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION AND FOR THE DEMOLITION, REMOVAL, OR RELOCATION OF ITEMS IN CONFLICT WITH THE PROPOSED CONSTRUCTION.

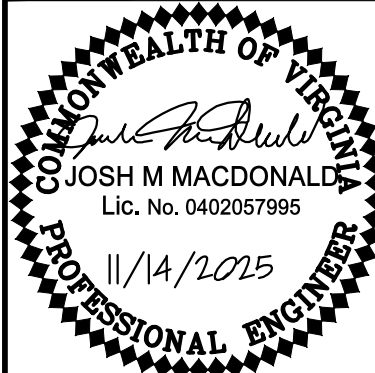
SURVEY NOTES

- FIELD SURVEY PREPARED BY GR5 GROUP, LLC SEPTEMBER 3, 2024 THROUGH SEPTEMBER 21, 2024.
- WETLAND DELINEATION BY KIMLEY-HORN, MAY 13, 2025



Jacobs

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PHONE: 804-673-8882  
WWW.KIMLEY-HORN.COM



|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

EXISTING  
CONDITIONS &  
DEMOLITION PLAN

PROJECT HERCULES

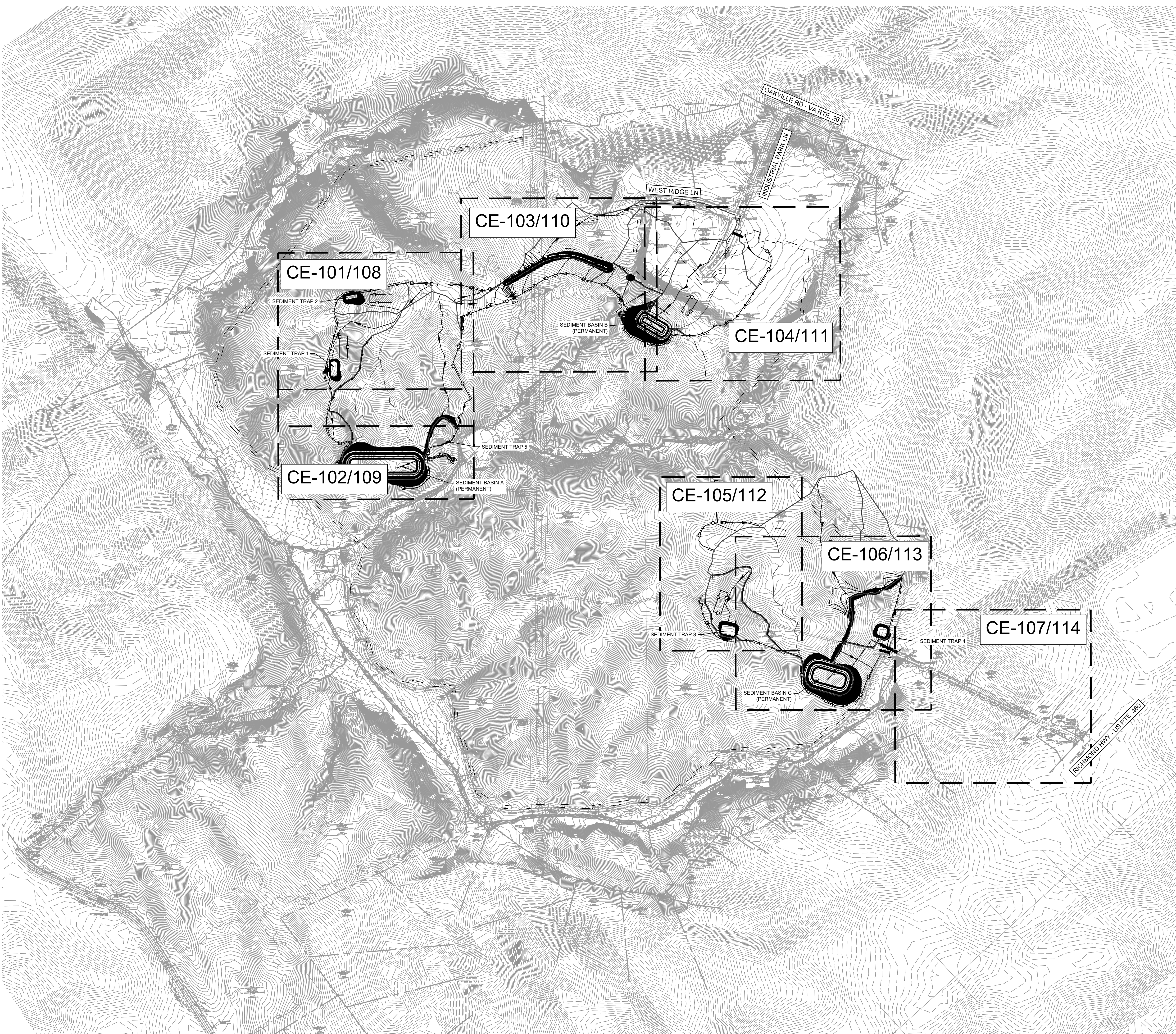
SHEET NUMBER  
CV-107

VA

APPOMATTOX COUNTY

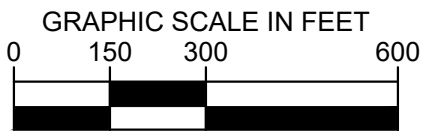
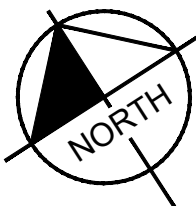


Plotted By:McGray, Stephen Sheet Set:Kha Layout:CE-100 PHASE I EROSION AND SEDIMENT CONTROL November 05, 2023 04:15:52pm  
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| VIRGINIA UNIFORM CODING SYSTEM<br>FOR EROSION AND SEDIMENT CONTROL |     |                          |
|--------------------------------------------------------------------|-----|--------------------------|
|                                                                    | CE  | CONSTRUCTION ENTRANCE    |
|                                                                    | SF  | SILT FENCE               |
|                                                                    | SSF | SUPER SILT FENCE         |
|                                                                    | IP  | INLET PROTECTION         |
|                                                                    | CIP | CULVERT INLET PROTECTION |
|                                                                    | DD  | DIVERSION DIKE           |
|                                                                    | FD  | FILL DIVERSION           |
|                                                                    | ST  | SEDIMENT TRAP            |
|                                                                    | SB  | SEDIMENT BASIN           |
|                                                                    | OP  | OUTLET PROTECTION        |
|                                                                    | CD  | ROCK CHECK DAM           |
|                                                                    | TS  | TEMPORARY SEEDING        |
|                                                                    | PS  | PERMANENT SEEDING        |
|                                                                    | BM  | BLANKET MATTING          |
|                                                                    |     | LIMITS OF DISTURBANCE    |
|                                                                    |     | DIVERSION                |
|                                                                    | SFO | SILT FENCE OUTLET        |
|                                                                    |     | DRAINAGE AREA BOUNDARY   |
|                                                                    |     | DIVERSION BOUNDARY       |
|                                                                    |     | "J-HOOK" SILT FENCE      |

- EROSION AND SEDIMENT CONTROL NOTES**
- SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
  - SEE SHEETS CE-100 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
  - SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
  - TEMPORARY SEEDING SHOULD BE PLACED IN ALL DISTURBED AREAS.
  - SEE TABLES ON SHEET CE-503 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
  - SEE SHEET CE-501 FOR PHASE I PROBABLE CONSTRUCTION SEQUENCE.
  - SEE SHEET CE-503 FOR DIVERSION CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE "PHASE I E&S DITCH DESIGN SUMMARY TABLE" ON SHEET CE-503.
  - FLOW PATHS HAVE BEEN PROVIDED FOR AREAS DRAINING TO SUPER SILT FENCE TO DEMONSTRATE COMPLIANCE WITH TABLE C-PCM-04-2 OF THE 2024 VIRGINIA STORMWATER MANAGEMENT HANDBOOK.
  - PORTIONS OF LOD WITHOUT A PERIMETER CONTROL SHALL BE STAKED AND MARKED WITH FLAGS SO CONTRACTOR DOES NOT PERFORM WORK OUTSIDE OF LOD.
  - SILT FENCE TO BE UTILIZED ON THE LOW SIDE OF ALL 20' WIDE SECURITY FENCE INSTALLATION LOD CORRIDOR. WITH PORTIONS OF SILT FENCE INSTALLED PRIOR TO FENCE INSTALLATION. THEN REMOVED ONCE STABILIZED AND PERMANENT SEEDING APPLIED. WATER TO SHEET FLOW ACROSS THE 20' INSTALLATION CORRIDOR TO THE MAXIMUM EXTENT PRACTICAL. CONTRACTOR TO WORK IN LIMITED SEGMENTS AT THE DISCRETION OF THE LOCAL E&S INSPECTOR. WITH SUBSEQUENT SEGMENTS NOT INSTALLED UNTIL SECURITY FENCE IS INSTALLED. PORTION OF LOD IS RESTABILIZED/SEEDED, AND CORRESPONDING SILT FENCE REMOVED. SEE SHEET CE-503 FOR TYPICAL DETAIL.



PROJECT HERCULES

OVERALL PHASE I  
EROSION AND  
SEDIMENT CONTROL

SHEET NUMBER  
CE-100

APPOMATTOX COUNTY

VA

Kimley»Horn

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PHONE: 804-673-8882  
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COMMONWEALTH OF VIRGINIA

JOSH M MACDONALD

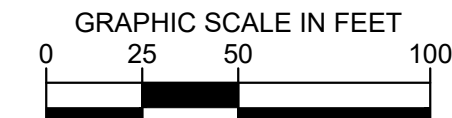
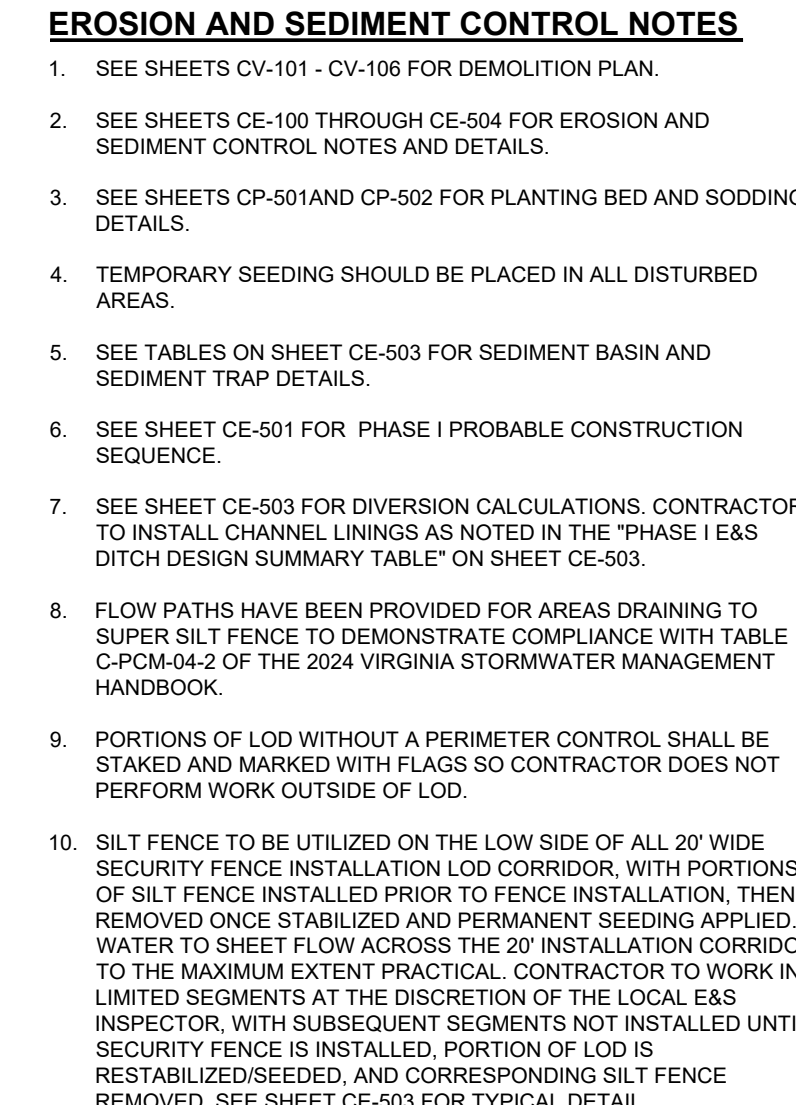
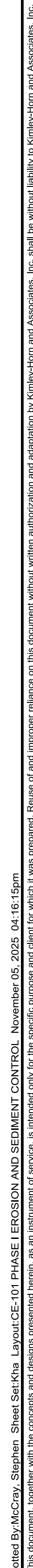
Lic. No. 0402057995

11/14/2025

PROFESSIONAL ENGINEER

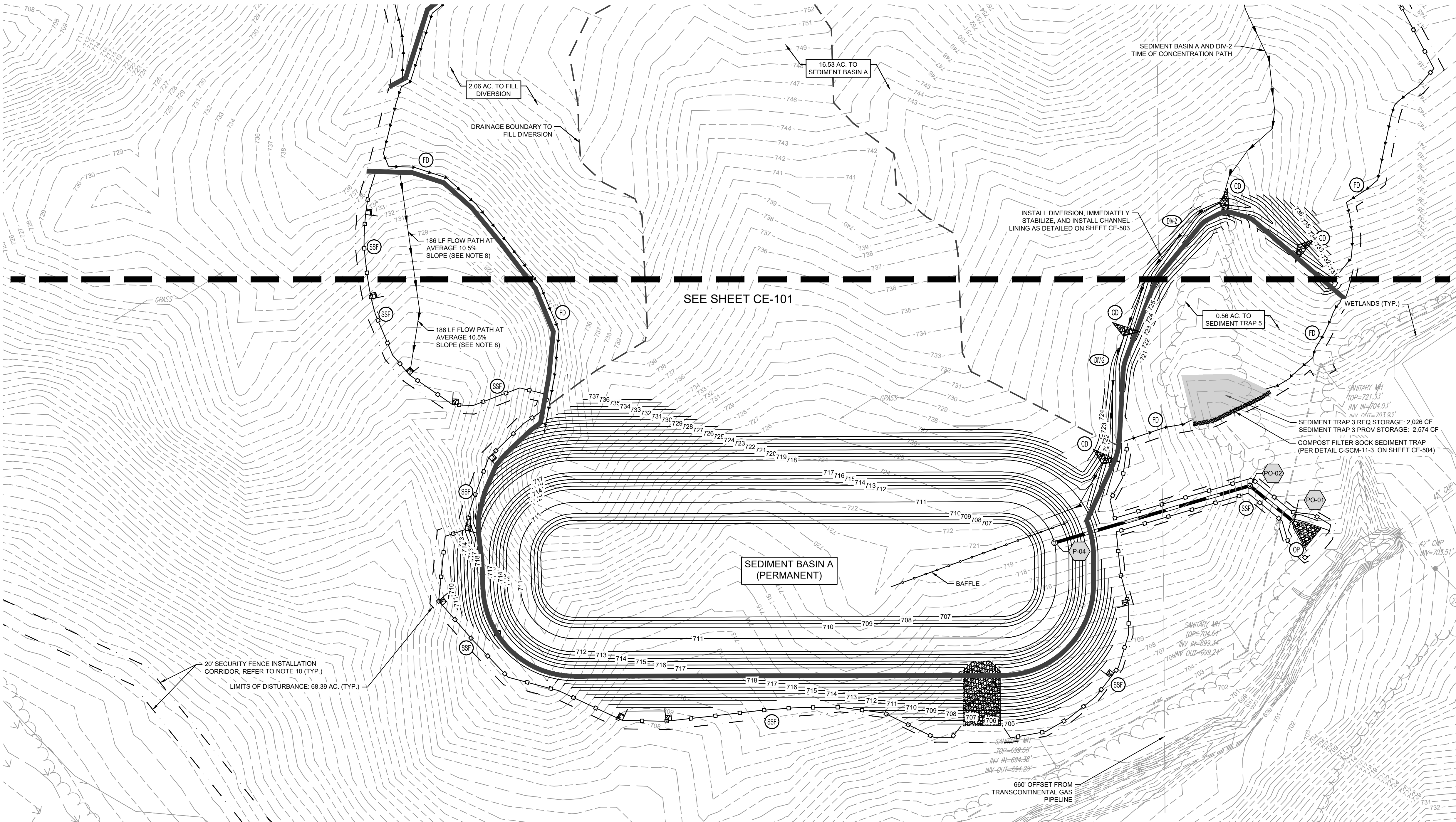
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|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|





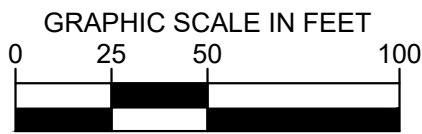
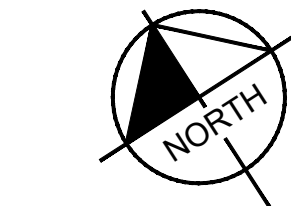


Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CE-102 PHASE I EROSION AND SEDIMENT CONTROL November 05, 2025 04:16:38pm  
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| VIRGINIA UNIFORM CODING SYSTEM<br>FOR EROSION AND SEDIMENT CONTROL |        |                          |
|--------------------------------------------------------------------|--------|--------------------------|
|                                                                    | CE     | CONSTRUCTION ENTRANCE    |
|                                                                    | SF     | SILT FENCE               |
|                                                                    | SSF    | SUPER SILT FENCE         |
|                                                                    | IP     | INLET PROTECTION         |
|                                                                    | CIP    | CULVERT INLET PROTECTION |
|                                                                    | DD     | DIVERSION DIKE           |
|                                                                    | FD     | FILL DIVERSION           |
|                                                                    | ST     | SEDIMENT TRAP            |
|                                                                    | SB     | SEDIMENT BASIN           |
|                                                                    | OP     | OUTLET PROTECTION        |
|                                                                    | CD     | ROCK CHECK DAM           |
|                                                                    | TS     | TEMPORARY SEEDING        |
|                                                                    | PS     | PERMANENT SEEDING        |
|                                                                    | BM     | BLANKET MATTING          |
|                                                                    |        | LIMITS OF DISTURBANCE    |
|                                                                    | DIV-XX | DIVERSION                |
|                                                                    | SFO    | SILT FENCE OUTLET        |
|                                                                    |        | DRAINAGE AREA BOUNDARY   |
|                                                                    |        | DIVERSION BOUNDARY       |
|                                                                    |        | "J-HOOK" SILT FENCE      |

- EROSION AND SEDIMENT CONTROL NOTES**
- SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
  - SEE SHEETS CE-100 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
  - SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
  - TEMPORARY SEEDING SHOULD BE PLACED IN ALL DISTURBED AREAS.
  - SEE TABLES ON SHEET CE-503 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
  - SEE SHEET CE-501 FOR PHASE I PROBABLE CONSTRUCTION SEQUENCE.
  - SEE SHEET CE-503 FOR DIVERSION CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE 'PHASE I E&S DITCH DESIGN SUMMARY TABLE' ON SHEET CE-503.
  - FLOW PATHS HAVE BEEN PROVIDED FOR AREAS DRAINING TO SUPER SILT FENCE TO DEMONSTRATE COMPLIANCE WITH TABLE C-PCM-04-2 OF THE 2024 VIRGINIA STORMWATER MANAGEMENT HANDBOOK.
  - PORTIONS OF LOD WITHOUT A PERIMETER CONTROL SHALL BE STAKED AND MARKED WITH FLAGS SO CONTRACTOR DOES NOT PERFORM WORK OUTSIDE OF LOD.
  - SILT FENCE TO BE UTILIZED ON THE LOW SIDE OF ALL 20' WIDE SECURITY FENCE INSTALLATION LOD CORRIDOR. WITH PORTIONS OF SILT FENCE INSTALLED PRIOR TO FENCE INSTALLATION. THEN REMOVED ONCE STABILIZED AND PERMANENT SEEDING APPLIED. WATER TO SHEET FLOW ACROSS THE 20' INSTALLATION CORRIDOR TO THE MAXIMUM EXTENT PRACTICAL. CONTRACTOR TO WORK IN LIMITED SEGMENTS AT THE DISCRETION OF THE LOCAL E&S INSPECTOR. WITH SUBSEQUENT SEGMENTS NOT INSTALLED UNTIL SECURITY FENCE IS INSTALLED. PORTION OF LOD IS RESTABILIZED/SEEDED. AND CORRESPONDING SILT FENCE REMOVED. SEE SHEET CE-503 FOR TYPICAL DETAIL.

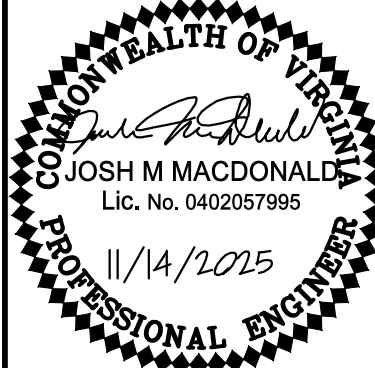


PHASE I EROSION  
AND SEDIMENT  
CONTROL

PROJECT HERCULES  
APPOMATTOX COUNTY  
VA

SHEET NUMBER  
CE-102

**Kimley»Horn**  
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|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|



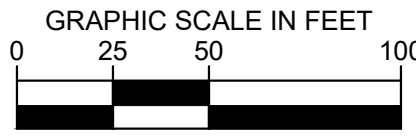






## **EROSION AND SEDIMENT CONTROL NOTES**

1. SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
2. SEE SHEETS CE-500 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
3. SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
4. TEMPORARY SEEDING SHOULD BE PLACED IN ALL DISTURBED AREAS.
5. SEE TABLES ON SHEET CE-503 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
6. SEE SHEET CE-501 FOR PHASE I PROBABLE CONSTRUCTION SEQUENCE.
7. SEE SHEET CE-503 FOR DIVERSION CALCULATIONS, CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE "PHASE I & S DITCH DESIGN SUMMARY TABLE" ON SHEET CE-503.
8. FLOW PATHS HAVE BEEN PROVIDED FOR AREAS DRAINING TO SLOTTED SILENT FENCE TO DEMONSTRATE COMPLIANCE WITH TABLE C-PCM-04.2 OF THE 2024 VIRGINIA STORMWATER MANAGEMENT HANDBOOK.
9. PORTIONS OF LOD WITHOUT A PERIMETER CONTROL, SHALL BE STAKED AND MARKED WITH FLAGS SO CONTRACTOR DOES NOT PERFORM WORK OUTSIDE OF LOD.
10. SILT FENCE TO BE UTILIZED ON THE LOW SIDE OF ALL 20' WIDE SECURITY FENCE INSTALLATION LOD CORRIDOR, WITH PORTIONS OF SILT FENCE INSTALLED PRIOR TO FENCE INSTALLATION, THEN REMOVED ONCE STABILIZED AND PERMANENT SEEDING APPLIED WITH SILT FENCE FLOW ACROSS THE 20' INSTALLATION CORRIDOR TO THE MAXIMUM EXTENT PRACTICAL. CONTRACTOR TO WORK IN LIMITED SEGMENTS AT THE DISCRETION OF THE LOCAL EASB IN CONJUNCTION WITH SUBMITTAL OF SEGMENTS NOT INSTALLED UNTIL SECURITY FENCE IS INSTALLED. PORTION OF LOD IS REESTABLISHED/SEEDED, AND CORRESPONDING SILT FENCE REMOVED. SEE SHEET CE-503 FOR TYPICAL DETAIL.



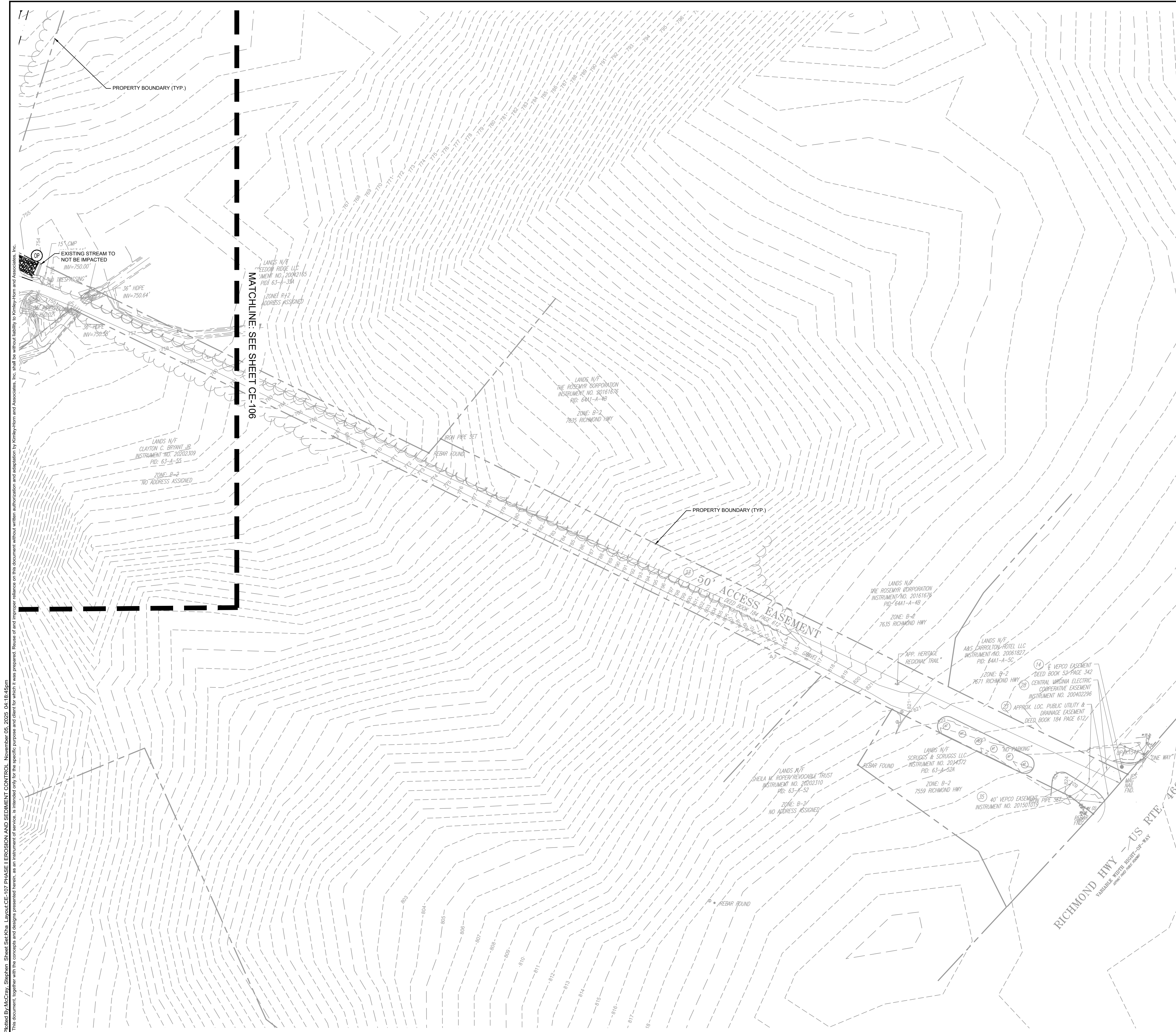






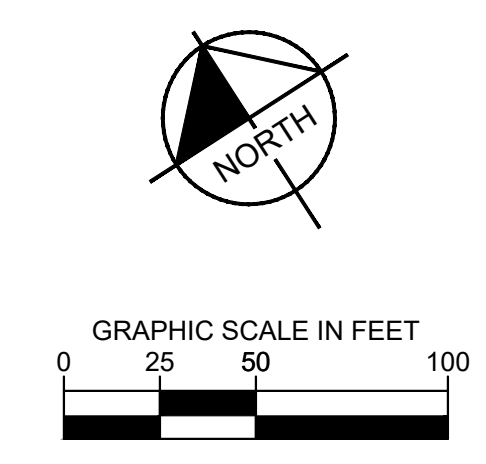






| VIRGINIA UNIFORM CODING SYSTEM<br>FOR EROSION AND SEDIMENT CONTROL                  |                                |
|-------------------------------------------------------------------------------------|--------------------------------|
|  | (CE) CONSTRUCTION ENTRANCE     |
| — x — x — x —                                                                       | (SF) SILT FENCE                |
|  | (SSF) SUPER SILT FENCE         |
|  | (IP) INLET PROTECTION          |
|  | (CIP) CULVERT INLET PROTECTION |
|  | (DD) DIVERSION DIKE            |
|  | (FD) FILL DIVERSION            |
|  | (ST) SEDIMENT TRAP             |
|  | (SB) SEDIMENT BASIN            |
|  | (OP) OUTLET PROTECTION         |
|  | (CD) ROCK CHECK DAM            |
|  | (TS) TEMPORARY SEEDING         |
|  | (PS) PERMANENT SEEDING         |
|  | (BM) BLANKET MATTING           |
| — · · · —                                                                           | LIMITS OF DISTURBANCE          |
|  | DIVERSION                      |
|  | SILT FENCE OUTLET              |
|  | DRAINAGE AREA BOUNDARY         |
|  | DIVERSION BOUNDARY             |
|  | "J-HOOK" SILT FENCE            |

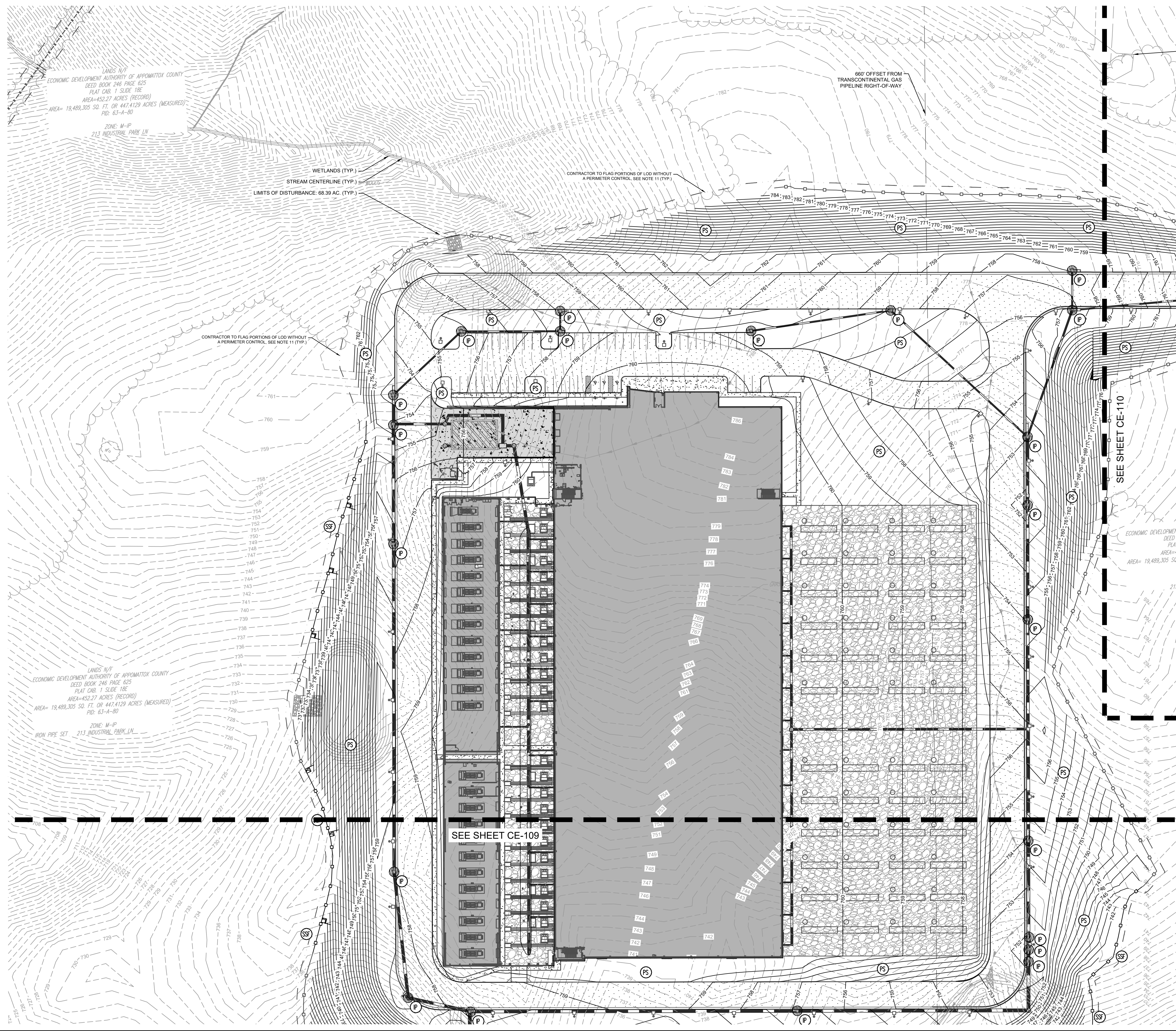
- ## **EROSION AND SEDIMENT CONTROL NOTES**
1. SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
  2. SEE SHEETS CE-100 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
  3. SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
  4. TEMPORARY SEEDING SHOULD BE PLACED IN ALL DISTURBED AREAS.
  5. SEE TABLES ON SHEET CS-303 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
  6. SEE SHEET CE-501 FOR PHASE I PROBABLE CONSTRUCTION SEQUENCE.
  7. SEE SHEET CE-503 FOR DIVERSION CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LINKINGS AS NOTED IN THE "PHASE I E&S DITCH DESIGN SUMMARY TABLE" ON SHEET CE-503.
  8. FLOW PATHS HAVE BEEN PROVIDED FOR AREAS DRAINING TO SLOPE FENCE TO DEMONSTRATE COMPLIANCE WITH TABLE C-FCM-04.2 OF THE 2024 VIRGINIA STORMWATER MANAGEMENT HANDBOOK.
  9. PORTIONS OF LOD WITHOUT A PERIMETER CONTROL SHALL BE STAKED AND MARKED WITH FLAGS SO CONTRACTOR NOT PERFORM WORK OUTSIDE OF LOD.
  10. SILT FENCE TO BE UTILIZED ON THE LOW SIDE OF ALL 20' WIDE SECURITY FENCE INSTALLATION LOD CORRIDOR, WITH PORTIONS OF SILT FENCE INSTALLED PRIOR TO FENCE INSTALLATION, THEN REMOVE ONCE STABILIZED AND PERMANENT SEEDING APPLIED WATER TO SHEET FLOW ACROSS THE 20' INSTALLATION CORRIDOR TO THE MAXIMUM EXISTENT PRACTICAL. CONTRACTOR TO WORK IN LINE SEGMENTS AT THE DISCRETION OF THE LOCAL AREA INSPECTOR, WITH SUBSEQUENT SEGMENTS NOT INSTALLED UNTIL SECURITY FENCE IS INSTALLED. PORTION OF LOD IS RE-STABILIZED/SEEDED, AND CORRESPONDING SILT FENCE REMOVED. SEE SHEET CE-502 FOR TYPICAL DETAILS.



|                               |  |                   |  |                                            |  |                                                                                                                       |  |                                                                                      |  |                                                                                                                                                                  |  |                                                                                       |  |
|-------------------------------|--|-------------------|--|--------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|
| SHEET NUMBER<br><b>CE-107</b> |  | PROJECT HERCULES  |  | PHASE I EROSION<br>AND SEDIMENT<br>CONTROL |  | KHA PROJECT<br>113706001<br>DATE<br>11/14/2025<br>SCALE AS SHOWN<br>DESIGNED BY STM<br>DRAWN BY STM<br>CHECKED BY JMM |  |  |  | <b>Kimley»Horn</b><br>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br>6606 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br>PHONE: 804-673-3882<br>WWW.KIMLEY-HORN.COM |  |  |  |
|                               |  | APPOMATTOX COUNTY |  | VA                                         |  |                                                                                                                       |  |                                                                                      |  |                                                                                                                                                                  |  |                                                                                       |  |



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CE-108 PHASE II EROSION AND SEDIMENT CONTROL November 06, 2023 01:26:55pm  
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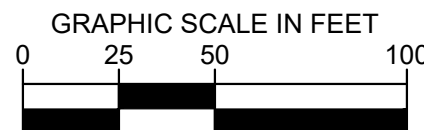
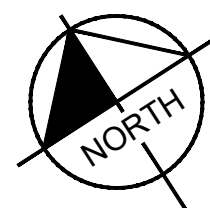


VIRGINIA UNIFORM CODING SYSTEM  
FOR EROSION AND SEDIMENT CONTROL

|  |       |                               |
|--|-------|-------------------------------|
|  | CE    | CONSTRUCTION ENTRANCE         |
|  | SF    | SILT FENCE                    |
|  | SSF   | SUPER SILT FENCE              |
|  | IP    | INLET PROTECTION              |
|  | CIP   | CULVERT INLET PROTECTION      |
|  | DD    | DIVERSION DIKE                |
|  | FD    | FILL DIVERSION                |
|  | ST    | SEDIMENT TRAP                 |
|  | SB    | SEDIMENT BASIN                |
|  | OP    | OUTLET PROTECTION             |
|  | CD    | ROCK CHECK DAM                |
|  | TS    | TEMPORARY SEEDING             |
|  | PS    | PERMANENT SEEDING             |
|  | BM    | BLANKET MATTING               |
|  |       | LIMITS OF DISTURBANCE         |
|  | SCS-V | STORMWATER CONVEYANCE CHANNEL |
|  |       | DRAINAGE AREA BOUNDARY        |
|  |       | DIVERSION BOUNDARY            |
|  |       | "J-HOOK" SILT FENCE           |

EROSION AND SEDIMENT CONTROL NOTES

- SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
- SEE SHEETS CE-100 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
- SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
- TEMPORARY SEEDING SHOULD BE PLACED IN ALL DISTURBED AREAS.
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- SEE TABLES ON SHEET CE-503 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
- SEE SHEET CE-501 FOR PHASE II PROBABLE CONSTRUCTION SEQUENCE.
- SEE SHEET CG-503 FOR STORMWATER CONVEYANCE CHANNEL CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE "PHASE II E&S AND POST DEVELOPMENT DITCH DESIGN SUMMARY TABLE" ON SHEET CG-503.
- PORTIONS OF LOD WITHOUT A PERIMETER CONTROL SHALL BE STAKED AND MARKED WITH FLAGS SO CONTRACTOR DOES NOT PERFORM WORK OUTSIDE OF LOD.
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Jacobs

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|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

PHASE II EROSION  
AND SEDIMENT  
CONTROL

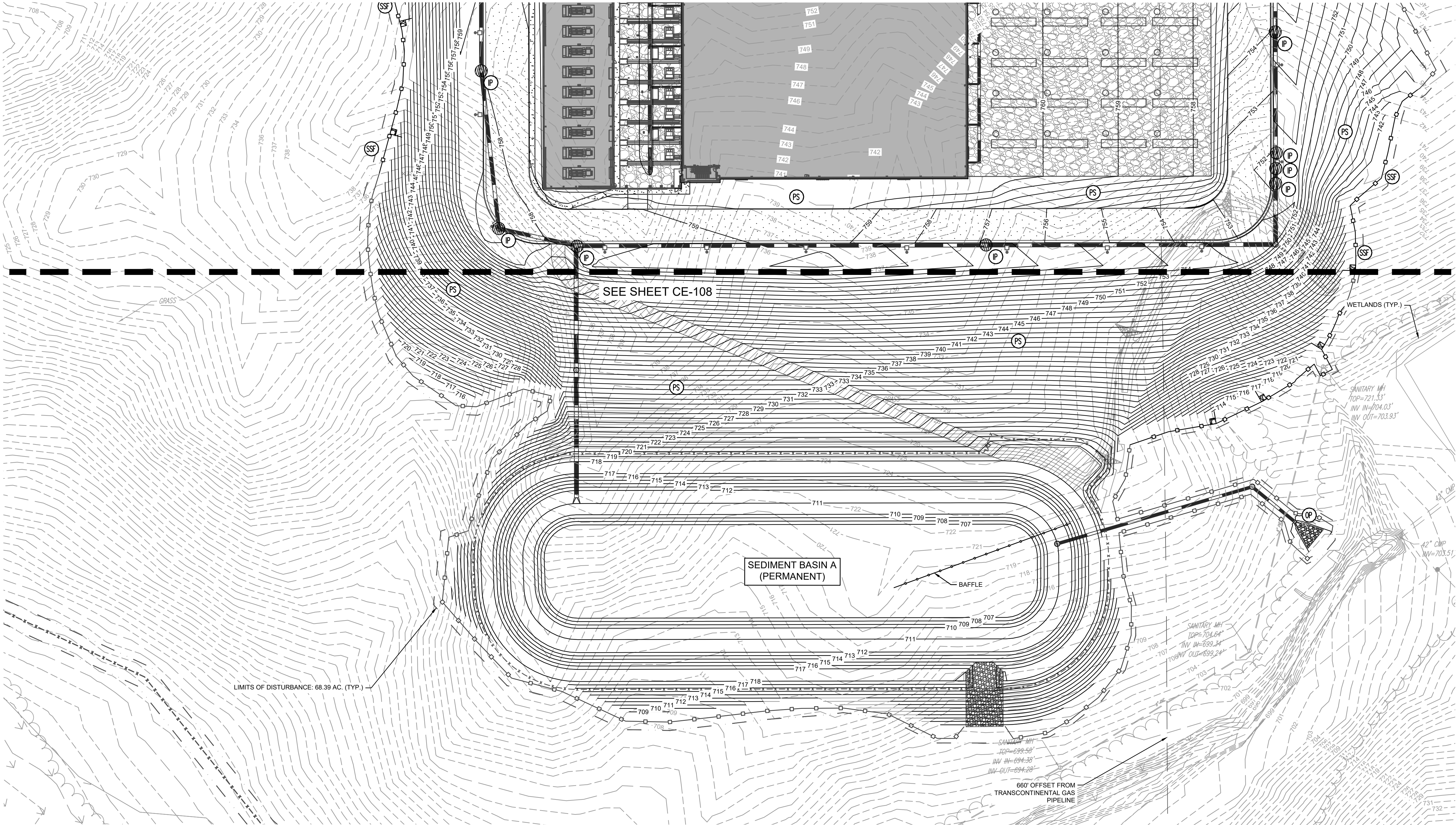
PROJECT HERCULES

SHEET NUMBER  
CE-108

APPOMATTOX COUNTY VA



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CE-109 PHASE II EROSION AND SEDIMENT CONTROL November 06, 2023 01:27:17pm  
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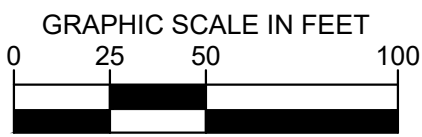
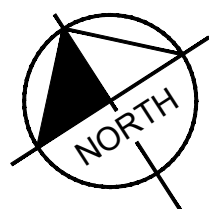


VIRGINIA UNIFORM CODING SYSTEM  
FOR EROSION AND SEDIMENT CONTROL

|  |      |                               |
|--|------|-------------------------------|
|  | CE   | CONSTRUCTION ENTRANCE         |
|  | SF   | SILT FENCE                    |
|  | SSF  | SUPER SILT FENCE              |
|  | IP   | INLET PROTECTION              |
|  | CIP  | CULVERT INLET PROTECTION      |
|  | DD   | DIVERSION DIKE                |
|  | FD   | FILL DIVERSION                |
|  | ST   | SEDIMENT TRAP                 |
|  | SB   | SEDIMENT BASIN                |
|  | OP   | OUTLET PROTECTION             |
|  | CD   | ROCK CHECK DAM                |
|  | TS   | TEMPORARY SEEDING             |
|  | PS   | PERMANENT SEEDING             |
|  | BM   | BLANKET MATTING               |
|  |      | LIMITS OF DISTURBANCE         |
|  | SC-V | STORMWATER CONVEYANCE CHANNEL |
|  |      | DRAINAGE AREA BOUNDARY        |
|  |      | DIVERSION BOUNDARY            |
|  |      | "J-HOOK" SILT FENCE           |

EROSION AND SEDIMENT CONTROL NOTES

- SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
- SEE SHEETS CE-100 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
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| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
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PHASE II EROSION  
AND SEDIMENT  
CONTROL

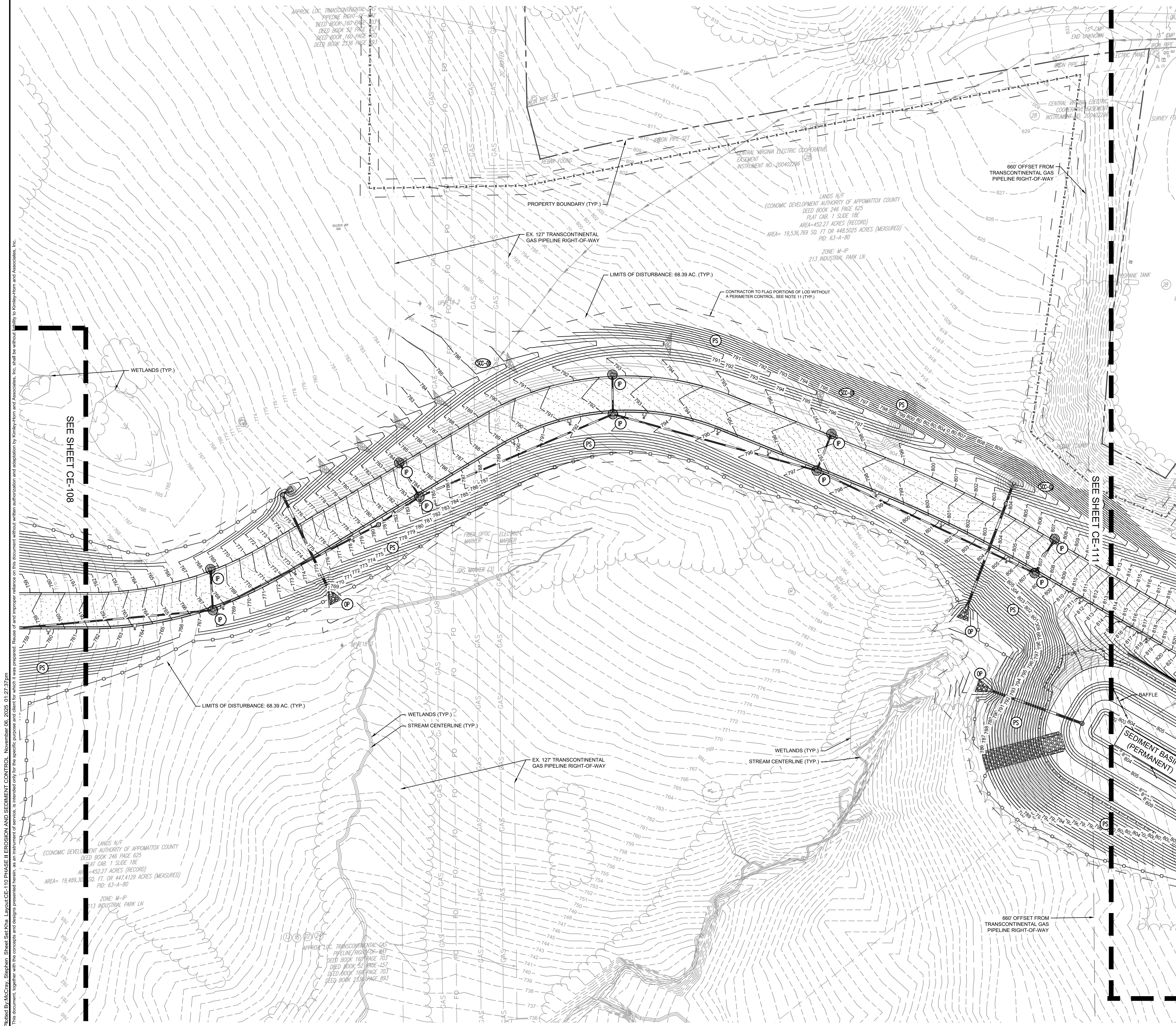
PROJECT HERCULES

VA

APPOMATTOX COUNTY

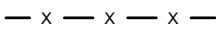
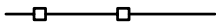
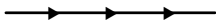
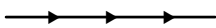
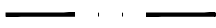
SHEET NUMBER  
CE-109





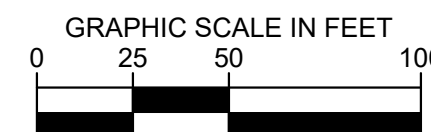
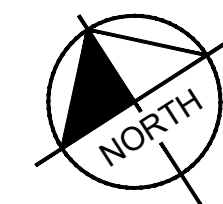
## VIRGINIA UNIFORM CODING SYSTEM

### FOR EROSION AND SEDIMENT CONTROL

|                                                                                     |                                                                                     |                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------|
|   |   | CONSTRUCTION ENTRANCE         |
|  |  | SILT FENCE                    |
|  |  | SUPER SILT FENCE              |
|  |  | INLET PROTECTION              |
|  |  | CULVERT INLET PROTECTION      |
|  |  | DIVERSION DIKE                |
|  |  | FILL DIVERSION                |
|  |  | SEDIMENT TRAP                 |
|  |  | SEDIMENT BASIN                |
|  |  | OUTLET PROTECTION             |
|  |  | ROCK CHECK DAM                |
|  |  | TEMPORARY SEEDING             |
|  |  | PERMANENT SEEDING             |
|  |  | BLANKET MATTING               |
|  |                                                                                     | LIMITS OF DISTURBANCE         |
|  |                                                                                     | STORMWATER CONVEYANCE CHANNEL |
|  |                                                                                     | DRAINAGE AREA BOUNDARY        |
|  |                                                                                     | DIVERSION BOUNDARY            |
|  |                                                                                     | "J-HOOK" SILT FENCE           |

### EROSION AND SEDIMENT CONTROL NOTES

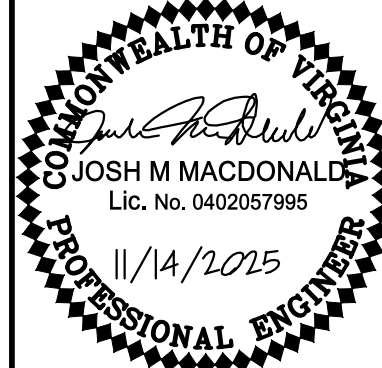
1. SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
2. SEE SHEETS CV-100 THROUGH CV-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
3. SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
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**Jacobs**

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|                          |                    |                |                 |              |                |
|--------------------------|--------------------|----------------|-----------------|--------------|----------------|
| KHA PROJECT<br>113706001 | DATE<br>11/14/2025 | SCALE AS SHOWN | DESIGNED BY STM | DRAWN BY STM | CHECKED BY JMM |
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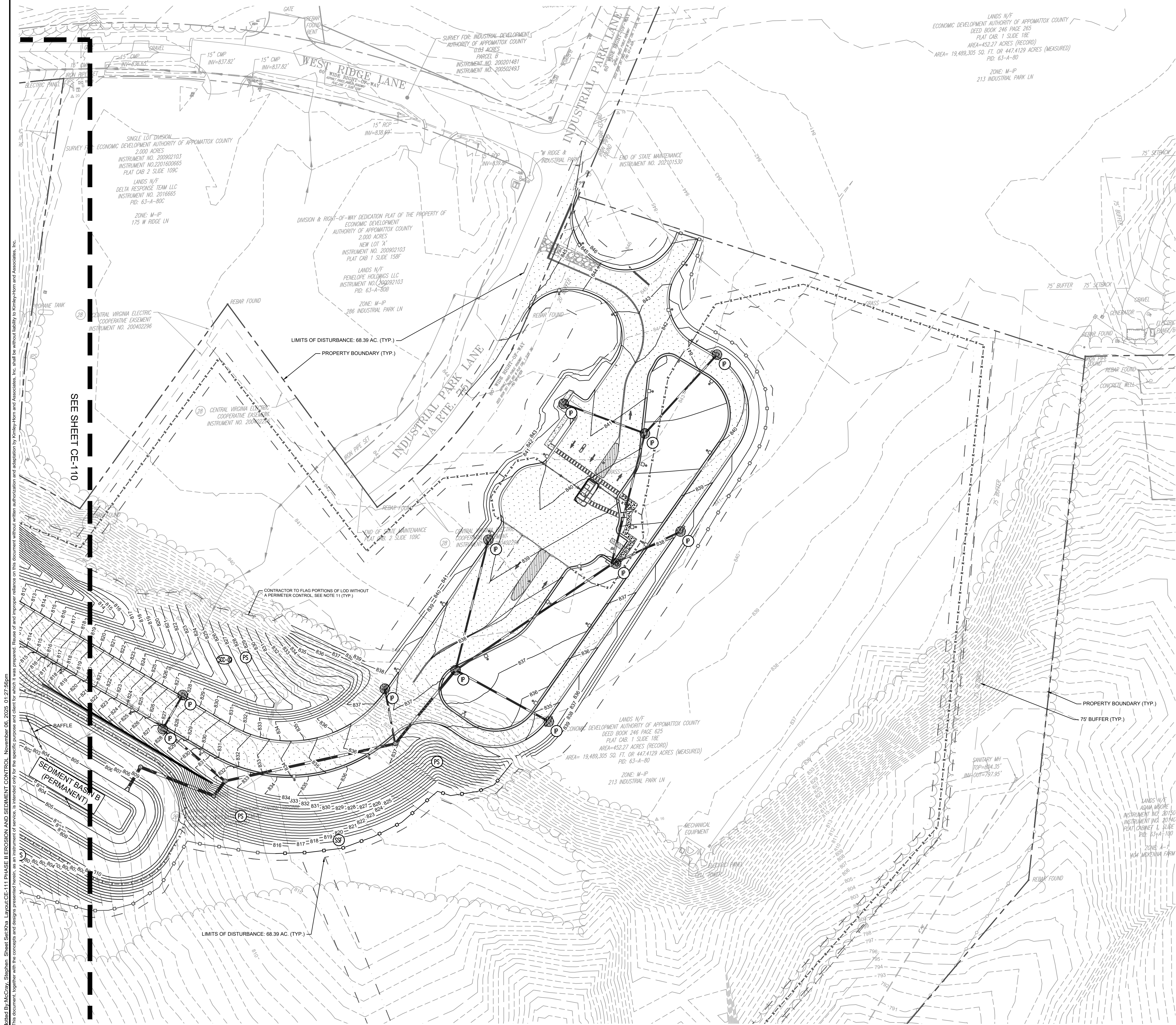
## PHASE II EROSION AND SEDIMENT CONTROL

# PROJECT HERCULES

APPROPRIATE COUNTY

SHEET NUMBER  
CE-110



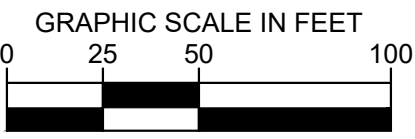
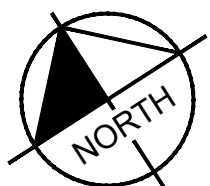


**VIRGINIA UNIFORM CODING SYSTEM  
FOR EROSION AND SEDIMENT CONTROL**

- |  |            |                               |
|--|------------|-------------------------------|
|  | <b>CE</b>  | CONSTRUCTION ENTRANCE         |
|  | <b>SF</b>  | SILT FENCE                    |
|  | <b>SSF</b> | SUPER SILT FENCE              |
|  | <b>IP</b>  | INLET PROTECTION              |
|  | <b>CIP</b> | CULVERT INLET PROTECTION      |
|  | <b>DD</b>  | DIVERSION DIKE                |
|  | <b>FD</b>  | FILL DIVERSION                |
|  | <b>ST</b>  | SEDIMENT TRAP                 |
|  | <b>SB</b>  | SEDIMENT BASIN                |
|  | <b>OP</b>  | OUTLET PROTECTION             |
|  | <b>CD</b>  | ROCK CHECK DAM                |
|  | <b>TS</b>  | TEMPORARY SEEDING             |
|  | <b>PS</b>  | PERMANENT SEEDING             |
|  | <b>BM</b>  | BLANKET MATTING               |
|  |            | LIMITS OF DISTURBANCE         |
|  | <b>SCV</b> | STORMWATER CONVEYANCE CHANNEL |
|  |            | DRAINAGE AREA BOUNDARY        |
|  |            | DIVERSION BOUNDARY            |
|  |            | "J-HOOK" SILT FENCE           |

**EROSION AND SEDIMENT CONTROL NOTES**

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|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

**PHASE II EROSION  
AND SEDIMENT  
CONTROL**

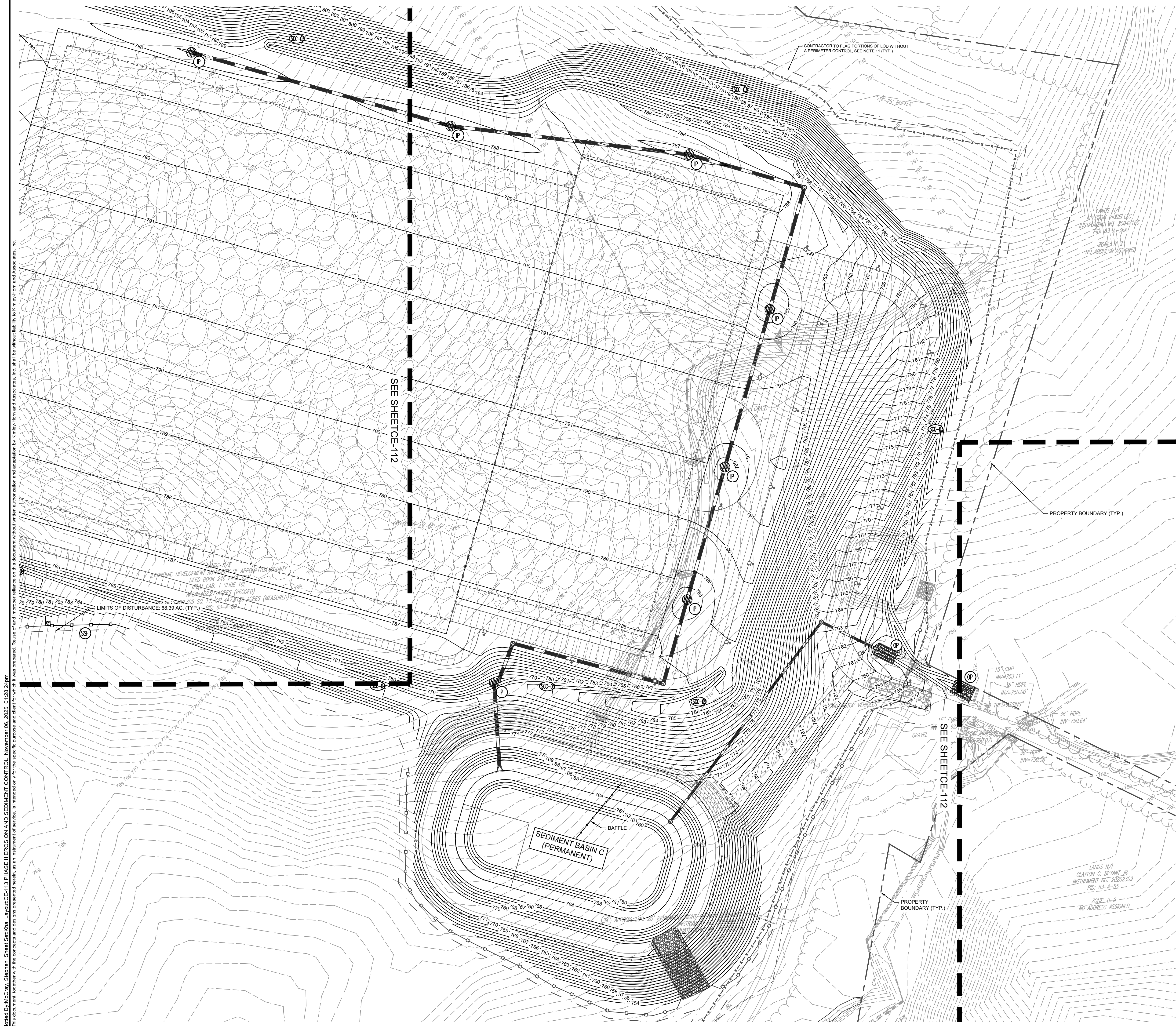
**PROJECT HERCULES**

SHEET NUMBER  
**CE-111**







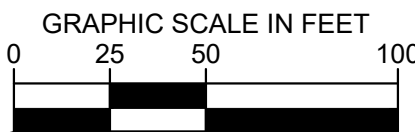
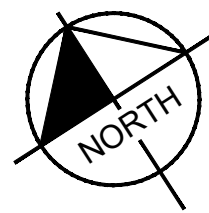


VIRGINIA UNIFORM CODING SYSTEM  
FOR EROSION AND SEDIMENT CONTROL

|  |        |                               |
|--|--------|-------------------------------|
|  | CE     | CONSTRUCTION ENTRANCE         |
|  | SF     | SILT FENCE                    |
|  | SSF    | SUPER SILT FENCE              |
|  | IP     | INLET PROTECTION              |
|  | CIP    | CULVERT INLET PROTECTION      |
|  | DD     | DIVERSION DIKE                |
|  | FD     | FILL DIVERSION                |
|  | ST     | SEDIMENT TRAP                 |
|  | SB     | SEDIMENT BASIN                |
|  | OP     | OUTLET PROTECTION             |
|  | CD     | ROCK CHECK DAM                |
|  | TS     | TEMPORARY SEEDING             |
|  | PS     | PERMANENT SEEDING             |
|  | BM     | BLANKET MATTING               |
|  |        | LIMITS OF DISTURBANCE         |
|  | SCC-VX | STORMWATER CONVEYANCE CHANNEL |
|  |        | DRAINAGE AREA BOUNDARY        |
|  |        | DIVERSION BOUNDARY            |
|  |        | "J-HOOK" SILT FENCE           |

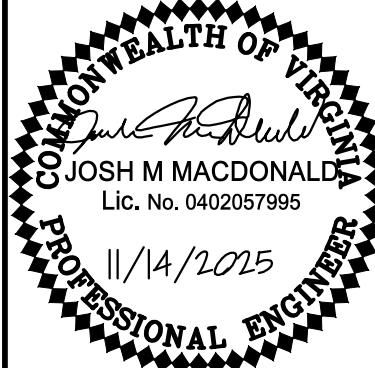
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PHASE II EROSION  
AND SEDIMENT  
CONTROL

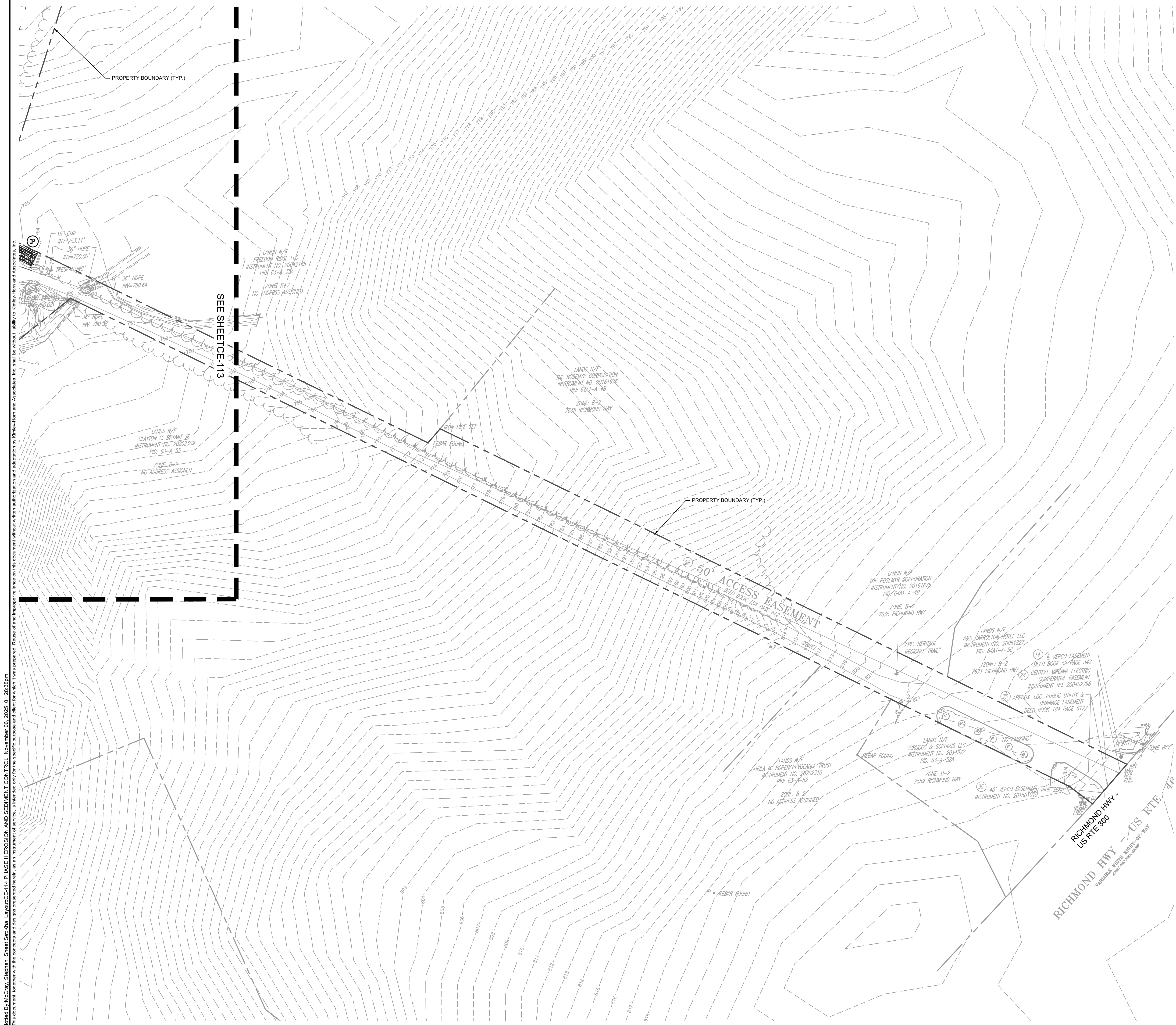
PROJECT HERCULES

SHEET NUMBER  
CE-113

VA

APPOMATTOX COUNTY



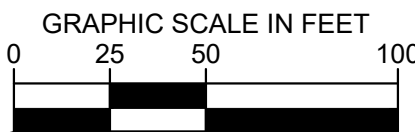
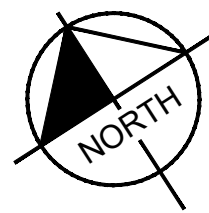


VIRGINIA UNIFORM CODING SYSTEM  
FOR EROSION AND SEDIMENT CONTROL

|  |      |                               |
|--|------|-------------------------------|
|  | CE   | CONSTRUCTION ENTRANCE         |
|  | SF   | SILT FENCE                    |
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|  | ST   | SEDIMENT TRAP                 |
|  | SB   | SEDIMENT BASIN                |
|  | OP   | OUTLET PROTECTION             |
|  | CD   | ROCK CHECK DAM                |
|  | TS   | TEMPORARY SEEDING             |
|  | PS   | PERMANENT SEEDING             |
|  | BM   | BLANKET MATTING               |
|  |      | LIMITS OF DISTURBANCE         |
|  | SC-V | STORMWATER CONVEYANCE CHANNEL |
|  |      | DRAINAGE AREA BOUNDARY        |
|  |      | DIVERSION BOUNDARY            |
|  |      | "J-HOOK" SILT FENCE           |

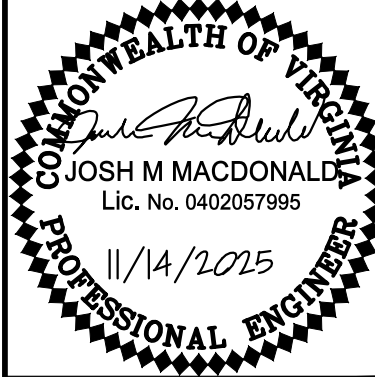
EROSION AND SEDIMENT CONTROL NOTES

- SEE SHEETS CV-101 - CV-106 FOR DEMOLITION PLAN.
- SEE SHEETS CE-100 THROUGH CE-504 FOR EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
- SEE SHEETS CP-501 AND CP-502 FOR PLANTING BED AND SODDING DETAILS.
- TEMPORARY SEEDING SHOULD BE PLACED IN ALL DISTURBED AREAS.
- NO MORE THAN FIFTY (50) PERCENT OF THE CONSTRUCTION FOOTPRINT SHALL BE DISTURBED AT ANY TIME, WITHOUT PERMANENT VEGETATION ESTABLISHED. COUNTY STAFF MAY LIMIT THE AMOUNT OF DISTURBED ACREAGE DUE TO SITE CHARACTERISTICS.
- PRIOR TO SEDIMENT TRAP OR BASIN REMOVAL, GRADING MUST BE COMPLETED SUCH THAT DRAINAGE AREAS PREVIOUSLY DRAINING TO TRAPS OR BASINS WILL DRAIN POSITIVELY TO ANOTHER BMP.
- AFTER CONSTRUCTION IS COMPLETE, TEMPORARY CONSTRUCTION AREAS ARE TO BE RESTORED TO THE EXISTING CONDITION PER THE RESTORATION SEQUENCE ON SHEET CG-501.
- SEE TABLES ON SHEET CE-503 FOR SEDIMENT BASIN AND SEDIMENT TRAP DETAILS.
- SEE SHEET CE-501 FOR PHASE II PROBABLE CONSTRUCTION SEQUENCE.
- SEE SHEET CG-503 FOR STORMWATER CONVEYANCE CHANNEL CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE "PHASE II E&S AND POST DEVELOPMENT DITCH DESIGN SUMMARY TABLE" ON SHEET CG-503.
- PORTIONS OF LOD WITHOUT A PERIMETER CONTROL SHALL BE STAKED AND MARKED WITH FLAGS SO CONTRACTOR DOES NOT PERFORM WORK OUTSIDE OF LOD.
- SILT FENCE TO BE UTILIZED ON THE LOW SIDE OF ALL 20' WIDE SECURITY FENCE INSTALLATION LOD CORRIDOR, WITH PORTIONS OF SILT FENCE INSTALLED PRIOR TO FENCE INSTALLATION, THEN REMOVED ONCE STABILIZED AND PERMANENT SEEDING APPLIED. WATER TO SHEET FLOW ACROSS THE 20' INSTALLATION CORRIDOR TO THE MAXIMUM EXTENT PRACTICAL. CONTRACTOR TO WORK IN LIMITED SEGMENTS AT THE DISCRETION OF THE LOCAL E&S INSPECTOR, WITH SUBSEQUENT SEGMENTS NOT INSTALLED UNTIL SECURITY FENCE IS INSTALLED. PORTION OF LOD IS RE-STABILIZED/SEEDED, AND CORRESPONDING SILT FENCE REMOVED. SEE SHEET CE-503 FOR TYPICAL DETAIL.



Jacobs

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| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
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PHASE II EROSION  
AND SEDIMENT  
CONTROL

PROJECT HERCULES

VA

APPOMATTOX COUNTY

SHEET NUMBER  
CE-114



Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CE-501 EROSION CONTROL NARRATIVE November 05, 2025 04:22:40pm  
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PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF IMPROVEMENTS ASSOCIATED WITH A NEW DATA HUB TO BE LOCATED IN APPOMATTOX COUNTY, VIRGINIA. THE SITE AREA IS 452.27 ACRES (RECORD), AND THE DISTURBED AREA IS 68.39 AC.

PROPOSED IMPROVEMENTS INCLUDE A DATA CENTER BUILDING AND SUBSTATION WITH ASSOCIATED DRIVE AISLES, PERIMETER FENCE, PARKING AREAS, CURBING, WATER AND SEWER SYSTEMS, AND STORM DRAINAGE SYSTEMS. SITE WORK INCLUDES CLEARING AND GRADING, UTILITY INSTALLATIONS, PAVING, AND LANDSCAPING.

ACCESS TO THE BUILDING PAD WILL BE PROVIDED FROM A PROPOSED ENTRANCE ON INDUSTRIAL PARK ROAD ON THE NORTHERN SIDE OF THE SITE. ACCESS TO THE SOUTHEAST SUBSTATION PAD WILL BE PROVIDED OFF OF ROUTE 460 THROUGH AN EXISTING ACCESS DRIVE.

EXISTING SITE CONDITIONS

CURRENTLY, THE SITE IS UNDEVELOPED. THE MAJORITY OF THE EXISTING SITE IS FORESTED/OPEN SPACE, PASTURE, AND MANAGED TURF.

EXISTING ELEVATIONS RANGE FROM APPROXIMATELY 700 FEET TO 850 FEET WITH RELATIVELY STEEP SLOPES THROUGHOUT THE CENTER OF THE PROPERTY. THE EXISTING SITE IS LESS THAN 1% IMPERVIOUS WITH TYPE B, C, AND D SOILS. CURRENTLY, THE MAJORITY OF THE SITE COLLECTS INTO STREAMS AND WETLANDS IN THE CENTER OF THE PROPERTY WHICH DRAIN WEST TOWARDS A FLOODPLAIN.

ADJACENT AREAS

THE SUBJECT SITE IS BORDERED BY OAKVILLE ROAD TO THE NORTHEAST, WEST RIDGE LANE TO THE NORTH, APPOMATTOX COUNTY LAND TO THE WEST, POLICE TOWER ROAD TO THE SOUTHWEST, AND RESIDENTIAL TO THE SOUTHEAST.

OFF-SITE AREAS

OFF-SITE LAND DISTURBANCE IS LIMITED TO UTILITY CONNECTIONS AND CURB TIE-INS ALONG INDUSTRIAL PARK ROAD.

SOILS

FOR DETAILED SOILS INFORMATION, REFER TO THE THE FINAL GEOTECHNICAL REPORT (CURRENTLY BEING PREPARED BY ECS.)

CRITICAL AREAS

WETLANDS AND STREAMS ARE PRESENT ON SITE BUT ARE NOT TO BE IMPACTED.

PERMANENT STABILIZATION

PERMANENT STABILIZATION SHALL BE PROVIDED BY THE SITE CONTRACTOR AND WILL BE ACHIEVED WITH SEEDING OR SODDING AS SHOWN ON THE LANDSCAPING PLAN SHEET FOR ALL VEGETATED AREAS. CONCRETE, PAVEMENT, AND OTHER IMPERVIOUS SURFACES WILL STABILIZE THE REMAINDER OF THE SITE.

SOIL STOCKPILE NOTE

APPROXIMATE STOCKPILE AREAS HAVE BEEN DESIGNATED ON SHEETS CE-101 THROUGH CE-107.

**STOCKPILING - TOPSOIL.** SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE SHALL RESULT. STABILIZE OR PROTECT STOCKPILES IN ACCORDANCE WITH MINIMUM STANDARD #2. THE SLOPE SIDES OF THE STOCKPILE SHALL NOT EXCEED 2H:1V. PERIMETER CONTROLS MUST BE PLACED AROUND THE STOCKPILE IMMEDIATELY. SEEDING OF STOCKPLES SHALL BE COMPLETED WITHIN 7 DAYS OF THE FORMATION OF THE STOCKPILE. IN ACCORDANCE WITH STD. AND SPEC. C-SSM-09 (TEMPORARY SEEDING); IF IT IS TO REMAIN DORMANT FOR LONGER THAN 14 DAYS (REFER TO MINIMUM STANDARD #1 AND #2).

MAINTENANCE

BETWEEN THE TIME THE EROSION CONTROL PLAN IS IMPLEMENTED AND FINAL SITE STABILIZATION IS ACHIEVED, ALL DISTURBED AREAS AND EROSION CONTROLS MUST BE INSPECTED AT LEAST ONCE EVERY 5 BUSINESS DAYS, OR AT LEAST ONCE EVERY 10 BUSINESS DAYS AND NO LATER THAN 24 HOURS FOLLOWING A MEASURABLE STORM EVENT.

EXAMPLES OF PARTICULAR ITEMS TO BE EVALUATED DURING SITE INSPECTIONS ARE LISTED BELOW. THIS LIST IS NOT INTENDED TO BE COMPREHENSIVE. DURING EACH INSPECTION, EACH INSPECTOR MUST EVALUATE OVERALL EROSION CONTROL, SYSTEM PERFORMANCE, AS WELL AS THE EFFECTIVENESS OF SYSTEM COMPONENTS. ADDITIONAL FACTORS SHOULD BE CONSIDERED AS APPROPRIATE TO THE CIRCUMSTANCES.

- LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. A STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT. THIS ENTRANCE WILL BE MAINTAINED OR SUPPLEMENTED AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE ON VEHICLES. SEDIMENT TRACKED ONTO PUBLIC ROADWAYS MUST BE SHOVELED OR SWEEP FROM THE ROADWAY AND RE-DEPOSITED ON SITE IN A MANNER THAT MINIMIZES ITS OFFSITE RELEASE POTENTIAL.
- SEDIMENT BARRIERS MUST BE INSPECTED AND, IF NECESSARY, THEY MUST BE ENLARGED OR CLEANED IN ORDER TO PROVIDE ADDITIONAL CAPACITY. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS SHALL BE STOCKPILED ON THE UP SLOPE SIDE OF THE BARRIER. ADDITIONAL SEDIMENT BARRIERS MUST BE CONSTRUCTED AS NEEDED.
- INSPECTIONS WILL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS.
- GRASSSED AREAS WILL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION WHEN TURF GRASS COVER PROVIDES PERMANENT STABILIZATION OF THE SOIL SURFACE EXCLUSIVE OF AREAS THAT HAVE BEEN PAVED OR COVERED BY BUILDING(S). PERMANENT STABILIZATION IS NOT CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO RECEIVING WATERS.

BASED UPON THE RESULTS OF THE INSPECTIONS, EACH EROSION AND SEDIMENT CONTROL MEASURE SHALL BE REPAIRED AND/OR MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE REQUIREMENTS SPECIFIED IN THE CORRESPONDING SECTION OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK. THE CONTRACTOR SHALL MAINTAIN A COPY OF THIS HANDBOOK ON SITE AT ALL TIMES DURING CONSTRUCTION.

EROSION CONTROL MEASURES

THE FOLLOWING EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN SHEET(S) OF THE SITE PLAN WILL BE USED FOR THIS PROJECT:

C-PCM-01 SAFETY FENCE - SAFETY FENCE WILL BE INSTALLED AROUND THE PERIMETER OF THE SITE. THE PURPOSE OF THIS PRACTICE IS TO PREVENT UNDESIRABLE ACCESS AND USE OF AN EROSION CONTROL DEVICE BY THE PUBLIC.

C-SCM-03 TEMPORARY STONE CONSTRUCTION ENTRANCE - A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER WILL BE PROVIDED AT THE PRIMARY CONSTRUCTION ACCESS POINT. THE PURPOSE OF THIS PRACTICE IS TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

C-PCM-04 SILT FENCE - A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED WILL BE PROVIDED AROUND MUCH OF THE SITE PERIMETER AND PARALLEL TO SLOPED AREAS. THE PURPOSE OF THIS PRACTICE IS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

SUPER SILT FENCE - A TEMPORARY SEDIMENT BARRIER CONSISTING OF A CHAIN LINK FENCE WITH A LAYER OF FILTER FABRIC ATTACHED AND ENTRENCHED, PLEASE REFER TO THE DETAIL ON SHEET CE-502.

C-SCM-04 STORM DRAIN INLET PROTECTION - A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET WILL BE PROVIDED AT ALL INLET LOCATIONS WITHIN THE LIMITS OF DISTURBANCE. THE PURPOSE OF THIS PRACTICE IS TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

C-SCM-05 CULVERT INLET PROTECTION - A SEDIMENT FILTER LOCATED AT THE INLET TO STORM SEWER CULVERTS THE PURPOSE OF THIS PRACTICE IS TO PREVENT SEDIMENT FROM ENTERING IN, ACCUMULATING IN AND BEING TRANSFERRED BY A CULVERT AND ASSOCIATED DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF A DISTURBED PROJECT AREA. IT CAN ALSO BE USED TO PROVIDE EROSION CONTROL AT CULVERT INLETS DURING THE PHASE OF A PROJECT WHERE ELEVATION AND DRAINAGE PATTERNS CHANGE, CAUSING ORIGINAL CONTROL MEASURES TO BE INEFFECTIVE OR IN NEED OF REMOVAL.

CE-SCM-06 TEMPORARY DIVERSION DIKE - AN EARTHEN BERM CONSTRUCTED ALONG A SLOPE TO DIVERT WATER INTO OR AWAY FROM SEDIMENT TREATMENT DEVICES. DIVERSION DIKES SERVE TO COLLECT SEDIMENT LADEN WATER AND DIRECT IT TO APPROPRIATE SEDIMENT TRAPS OR BASINS, AS WELL AS TO PREVENT CLEAN OFFSITE WATER FROM RUNNING OVER DISTURBED AREA AND BECOMING SEDIMENT LADEN.

CE-SCM-05 DIVERSION - A CHANNEL CONSTRUCTED ACROSS A SLOPE WITH A SUPPORTING EARTHEN RIDGE ON THE LOWER SIDE. THE PURPOSE OF THIS PRACTICE IS TO REDUCE SLOPE LENGTH AND TO INTERCEPT AND DIVERT STORMWATER RUNOFF TO STABILIZED OUTLETS AT NON-EROSIVE VELOCITIES.

CE-SCM-06 TEMPORARY FILL DIVERSION - A CHANNEL WITH A SUPPORTING RIDGE OF SOIL ON THE LOWER SIDE, CONSTRUCTED ALONG THE TOP OF AN ACTIVE EARTH FILL. TEMPORARY FILL DIVERSIONS ARE USED TO DIVERT STORM RUNOFF AWAY FROM THE UNPROTECTED SLOPE OF THE FILL TO A STABILIZED OUTLET OR SEDIMENT TRAPPING FACILITY.

C-SCM-11 SEDIMENT TRAP - A TEMPORARY PONDING AREA FORMED BY CONSTRUCTING AN EARTHEN EMBANKMENT WITH A STONE OUTLET. THE PURPOSE IS TO DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW THE MAJORITY OF THE SEDIMENT TO SETTLE OUT.

C-SCM-12 SEDIMENT BASIN - SEDIMENT BASINS FUNCTION TO DETAIN SEDIMENT LADEN RUNOFF FROM DISTURBED AREAS IN WET AND DRY STORAGE LONG ENOUGH TO ALLOW THE MAJORITY OF SEDIMENT TO SETTLE OUT.

CE-SCM-15 OUTLET PROTECTION - STRUCTURALLY LINED APRONS OR OTHER ACCEPTABLE ENERGY DISSIPATING DEVICES PLACED AT THE OUTLETS OF PIPES OR PAVED CHANNEL SECTIONS. THE PURPOSE IS TO PREVENT SCOUR AT STORMWATER OUTLETS, TO PROTECT THE OUTLET STRUCTURE, AND TO MINIMIZE THE POTENTIAL FOR DOWNSTREAM EROSION BY REDUCING THE VELOCITY AND ENERGY OF CONCENTRATED STORMWATER FLOWS.

C-SCM-07 ROCK CHECK DAM - SMALL TEMPORARY STONE DAMS CONSTRUCTED ACROSS A SWALE OR DRAINAGE DITCH. THE PURPOSE IS TO REDUCE THE VELOCITY OF CONCENTRATED STORMWATER FLOWS, THEREBY REDUCING EROSION OF THE SWALE OR DITCH. THIS PRACTICE ALSO TRAPS SEDIMENT GENERATED FROM ADJACENT AREAS OR THE DITCH ITSELF, MAINLY BY PONDING OF THE STORMWATER RUNOFF. FIELD EXPERIENCE HAS SHOWN IT TO PERFORM MORE EFFECTIVELY THAN SILT FENCE OR STRAW BALES IN THE EFFORT TO STABILIZE "WET-WEATHER" DITCHES.

C-SSM-09 TEMPORARY SEEDING - THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS WILL BE PROVIDED ON ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 14 DAYS. TEMPORARY SEEDING SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN LONGER THAN 14 DAYS AS PER MS-1. THE PURPOSE OF THIS PRACTICE IS TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED.

C-SSM-10 PERMANENT SEEDING - THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED WILL BE PROVIDED AS SHOWN ON THE LANDSCAPING PLAN. PERMANENT SEEDING SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED AS PER MS-1. THE PURPOSE OF THIS PRACTICE IS TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS AND TO PERMANENTLY STABILIZE DISTURBED AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS.

C-SSM-05 SODDING - STABILIZATION OF FINE-GRADED DISTURBED AREAS BY ESTABLISHING PERMANENT GRASS STANDS WITH SOD WILL BE PROVIDED FOR ALL AREAS ON-SITE AS SHOWN ON THE LANDSCAPING PLAN. THE PURPOSE OF THIS PRACTICE IS TO ESTABLISH PERMANENT TURF IMMEDIATELY AND TO PREVENT EROSION AND DAMAGE FROM SEDIMENT AND RUNOFF BY STABILIZING THE SOIL SURFACE.

C-SSM-05 SOIL STABILIZATION BLANKET AND MATTING - TO BE INSTALLED AS DENOTED ON THE PLANS. THE PURPOSE IS TO AID IN CONTROLLING EROSION ON CRITICAL AREAS BY PROVIDING A MICROCLIMATE WHICH PROTECTS YOUNG VEGETATION AND PROMOTES ITS ESTABLISHMENT.

C-SSM-01 TREE PROTECTION - PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY. ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL, WATERSHED PROTECTION, LANDSCAPE BEAUTIFICATION, DUST AND POLLUTION CONTROL, NOISE REDUCTION, SHADE AND OTHER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED FROM FOREST TO URBAN-TYPE USES.

MS-19 MINIMUM STANDARDS

MS-1 PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2 DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICATION OF THIS PRACTICE IS TO REDUCE THE POTENTIAL FOR EROSION AND STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MS-3 A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4 SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

MS-5 STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6 SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

MS-7 CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8 CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9 WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10 ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11 BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-12 WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND OFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

MS-13 WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14 ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15 THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16 UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

- A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPSIDE SIDE OF TRENCHES.
- C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
- F. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.

MS-17 WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

MS-18 ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS-19 PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA: STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

- B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
  - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
  - (2)(A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
  - (B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
  - (C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

- C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
  - (I) IMPROVE EXISTING CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO CHANNEL THE BED OR BANKS; OR
  - (II) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
  - (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MANMADE CHANNEL. OR
  - (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.

D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.

F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.

G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.

I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUANTITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE-YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62-1-44, 15-54 OR 62-144, 15-65 OF THE ACT.

M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62-144, 15-52 OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§62-144, 15-24 ET SEQ. OF THE CODE OF VIRGINIA) AND LAND-USE REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSWMP) PERMIT REGULATIONS.

N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-86 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSWMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

PHASE I PROBABLE CONSTRUCTION SEQUENCE

- PRIOR TO PRE-CONSTRUCTION MEETING INSTALL SWPPP MAILBOX AND WETLAND/RPA BARRICADE BLACK AND YELLOW TAPE.
  - SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING. THE OWNER MUST GIVE THE COUNTY INSPECTOR AT LEAST 48 HOURS NOTIFICATION TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING FOR THE ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CERTIFIED REGISTERED LAND DISTURBER (CRLD) MUST ATTEND THE MEETING. IF THE PROJECT DOES NOT COMMENCE FOR 180 DAYS AFTER THE PRE-CONSTRUCTION MEETING OR LIES DORMANT FOR MORE THAN 180 DAYS DURING CONSTRUCTION, A NEW PRE-CONSTRUCTION MEETINGS MUST BE SCHEDULED BEFORE CONSTRUCTION CAN BEGIN AGAIN.
  - THE VSWMP CONSTRUCTION ACTIVITY OPERATOR, ENVIRONMENTAL INSPECTOR (OR AUTHORIZED REPRESENTATIVE), VDOT INSPECTOR (OR AUTHORIZED REPRESENTATIVE), AND DEQ INSPECTOR (OR AUTHORIZED REPRESENTATIVE) MUST ATTEND THE PRE-CONSTRUCTION MEETING.
  - IDENTIFY THE LIMITS OF DISTURBANCE WITH FLAGGING OR OTHER CLEARLY IDENTIFIABLE MEANS PRIOR TO LAND DISTURBANCE. NO DISTURBANCE, MATERIAL STORAGE, OR OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR OUTSIDE OF THESE DEMARCATED LIMITS OF DISTURBANCE.
  - CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCE. CONTRACTOR TO KEEP EXISTING ROADS FREE OF MUD AND DEBRIS AT ALL TIMES.
  - PREPARE PARKING AND STORAGE AREAS AND INSTALL ANY DOWNSTREAM PERIMETER CONTROLS. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS ETC., DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
  - CONTRACTOR TO INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS, INCLUDING BUT NOT LIMITED TO: SILT FENCE, SUPER SILT FENCE, SILT FENCE OUTFALLS, CULVERT INLET PROTECTION, AND INLET PROTECTION.
  - CONTRACTOR TO CLEAR AND GRADE THE MINIMUM AREA NECESSARY TO INSTALL THE SEDIMENT TRAPS, SEDIMENT BASINS, DIVERSIONS, AND BYPASS CULVERTS. CONTRACTOR TO INSTALL THE DIVERSIONS AND MAINTAIN POSITIVE DRAINAGE TO SEDIMENT BASINS THROUGHOUT CONSTRUCTION. ADJUST OR INSTALL SILT FENCE AS NECESSARY FOR PHASE II CONSTRUCTION ACTIVITIES.
  - STABILIZATION OF ALL EXPOSED SOIL AREAS MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
  - ONCE DEMOLITION IS COMPLETE AND ALL PHASE I EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE PER DRAINAGE AREA, CONTRACTOR IS TO CONTACT APPOMATTOX COUNTY TO CONFIRM ALL PHASE I EROSION AND SEDIMENT CONTROL MEASURES ARE ACCEPTABLE. UPON COMPLETION OF PHASE I CONSTRUCTION ACTIVITIES, CONTRACTOR MAY BEGIN PHASE II CONSTRUCTION ACTIVITIES.
- PHASE II PROBABLE CONSTRUCTION SEQUENCE**
- AS THE UPSTREAM DRAINAGE BASINS ARE PROTECTED AND CONFIRMED WITH THE COUNTY INSPECTORS, ONLY THEN CAN THE CLEARING AND GRUBBING COMMENCE WITHIN THE PROTECTED DRAINAGE BASIN. NO WORK SHALL BE DONE OUTSIDE OF THE DRAINAGE BASINS THAT ARE PROTECTED EXCEPT FOR INSTALLATION OF ADDITIONAL PERIMETER CONTROLS. AS ADDITIONAL DRAINAGE BASINS ARE PROTECTED, CLEARING AND GRUBBING CAN CONTINUE INTO THESE AREAS OF WORK.
  - ONCE THE CLEARING, GRUBBING, AND DE-STUMPING ARE COMPLETE IN EACH DRAINAGE AREA, COMMENCE GRADING PER THE GRADING PLAN.
  - STOCKPLES MUST BE SEEDED AND MULCHED IMMEDIATELY UPON CONSTRUCTION. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE TO SEDIMENT BASINS THROUGHOUT CONSTRUCTION. ADJUST OR INSTALL SILT FENCE AS NECESSARY FOR PHASE II CONSTRUCTION ACTIVITIES.
  - BEGIN ROUGH GRADING OF ACCESS ROADS AND BUILDING PAD.
  - REMOVE AND/OR RELOCATE PHASE I ESC DITCHES AND DIVERSIONS AS THE SITE IS BROUGHT TO FINAL GRADE TO ENSURE RUNOFF IS CONVEYED TO SEDIMENT TRAPS AND BASINS.
  - PRIOR TO SEDIMENT TRAP OR BASIN REMOVAL, GRADING MUST BE COMPLETED SUCH THAT DRAINAGE AREAS PREVIOUSLY DRAINING TO TRAPS OR BASINS WILL DRAIN POSITIVELY TO ANOTHER BMP.
  - REMOVE SEDIMENT TRAPS AS SITE IS BROUGHT TO FINAL GRADE. ADD ADDITIONAL DIVERSIONS TO CONVEY RUNOFF TO SEDIMENT BASINS PRIOR TO STORMWATER UTILITY INSTALLATION. DITCHES MUST BE LINED WITH THE APPROPRIATE CHANNEL LINER SPECIFIED ON SHEET CE-503 IMMEDIATELY UPON CONSTRUCTION.
  - BEGIN INSTALLATION OF THE PERIMETER SECURITY FENCE, UTILIZING THE EROSION AND SEDIMENT CONTROL MEASURES DESCRIBED IN THE "EROSION AND SEDIMENT CONTROL NOTES" ON SHEETS CE-100 THROUGH CE-114.
  - BEGIN INSTALLATION OF PERMANENT UNDERGROUND UTILITIES. ADEQUATE COVER SHALL BE PROVIDED IN THE TEMPORARY CONDITION FOR INSTALLATION OF PIPES.
  - INSTALL INLET PROTECTION ON ALL NEW STORMWATER INLETS.
  - FINALIZE UTILITY AND STORM DRAIN INSTALLATION. INSTALL ADDITIONAL SEDIMENT CONTROLS AS NEEDED TO PROTECT STORM DURING INSTALLATION.
  - PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADING IS REACHED. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS.
  - BEGIN BUILDING CONSTRUCTION.
  - COMMENCE FINAL STABILIZATION OF ROADS/PARKING AREAS AND INSTALLATION OF PAVEMENT.
  - AS UPSTREAM ROUGH GRADING IS COMPLETE AND TEMPORARILY STABILIZED, REMOVE DIVERSION BERMS.
  - ONCE THE SITE IS PERMANENTLY STABILIZED AND FOLLOWING APPROVAL FROM THE COUNTY INSPECTOR, CONVERT ALL TEMPORARY SEDIMENT BASINS INTO PERMANENT PONDS ACCORDING TO THE CONVERSION SEQUENCE ON THESE PLANS. INSTALL STORMWATER MANAGEMENT SYSTEMS AND DEVICES AND/OR PLANTINGS.
  - REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY AFTER THE SITE IS FULLY STABILIZED), ONCE APPROVED BY THE COUNTY INSPECTOR. RESTORE LAYDOWN AREAS AND TEMPORARY WORKSPACES AREAS PER THE RESTORATION SEQUENCE ON THIS SHEET.

SEQUENCE OF CONSTRUCTION NOTE

THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THIS DESIGN. THE CONTRACTOR SHALL NOTIFY THE ORDERER IN WRITING IMMEDIATELY PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

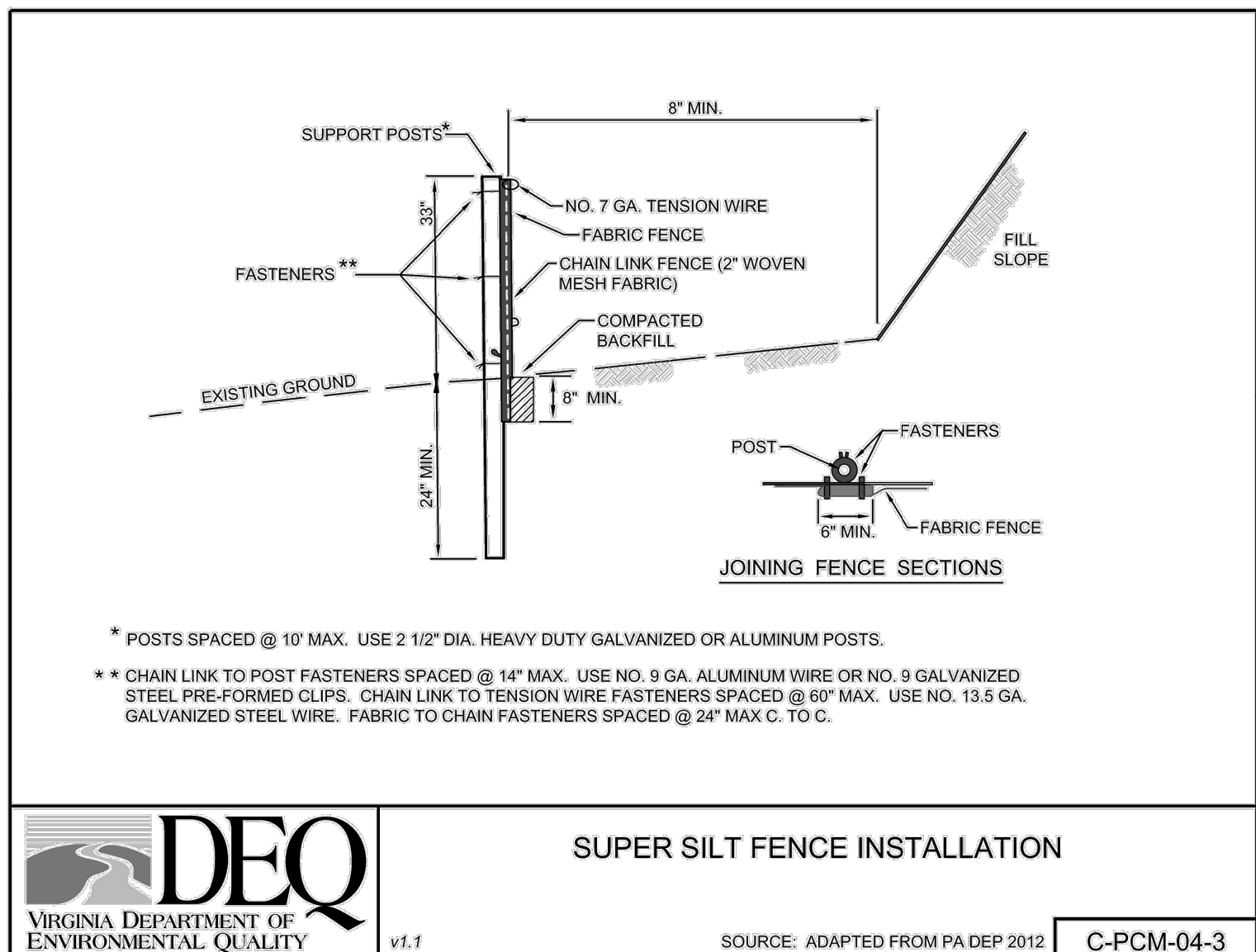
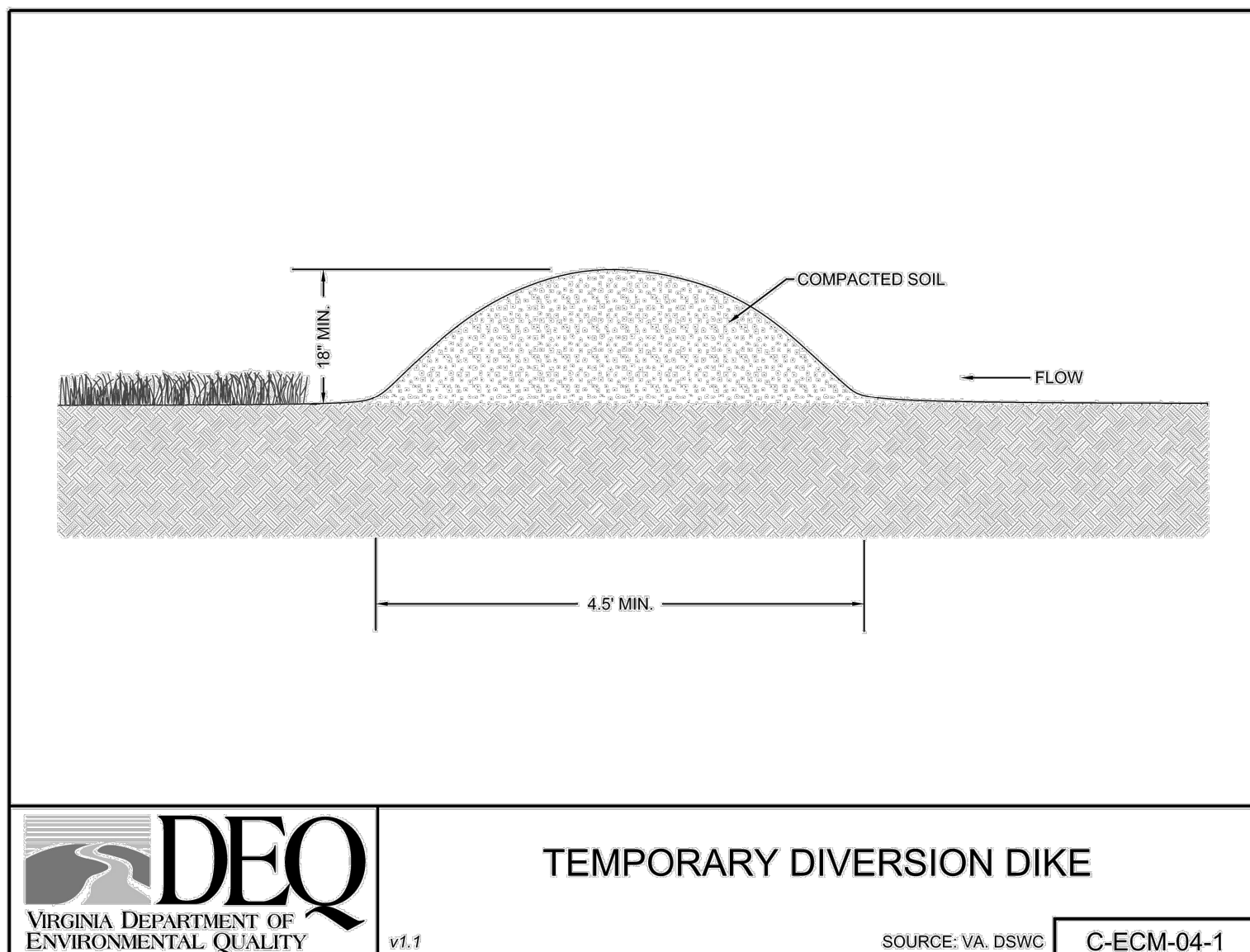
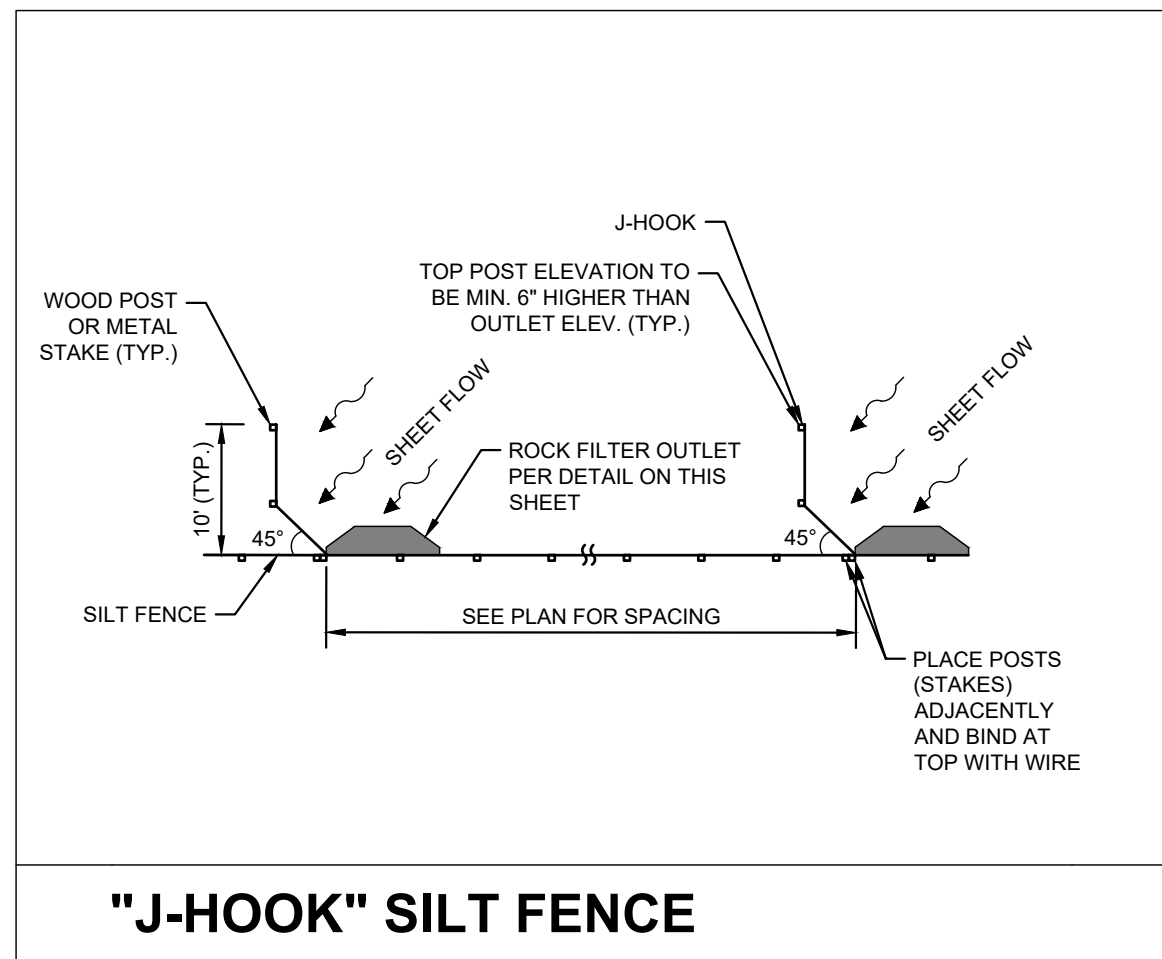
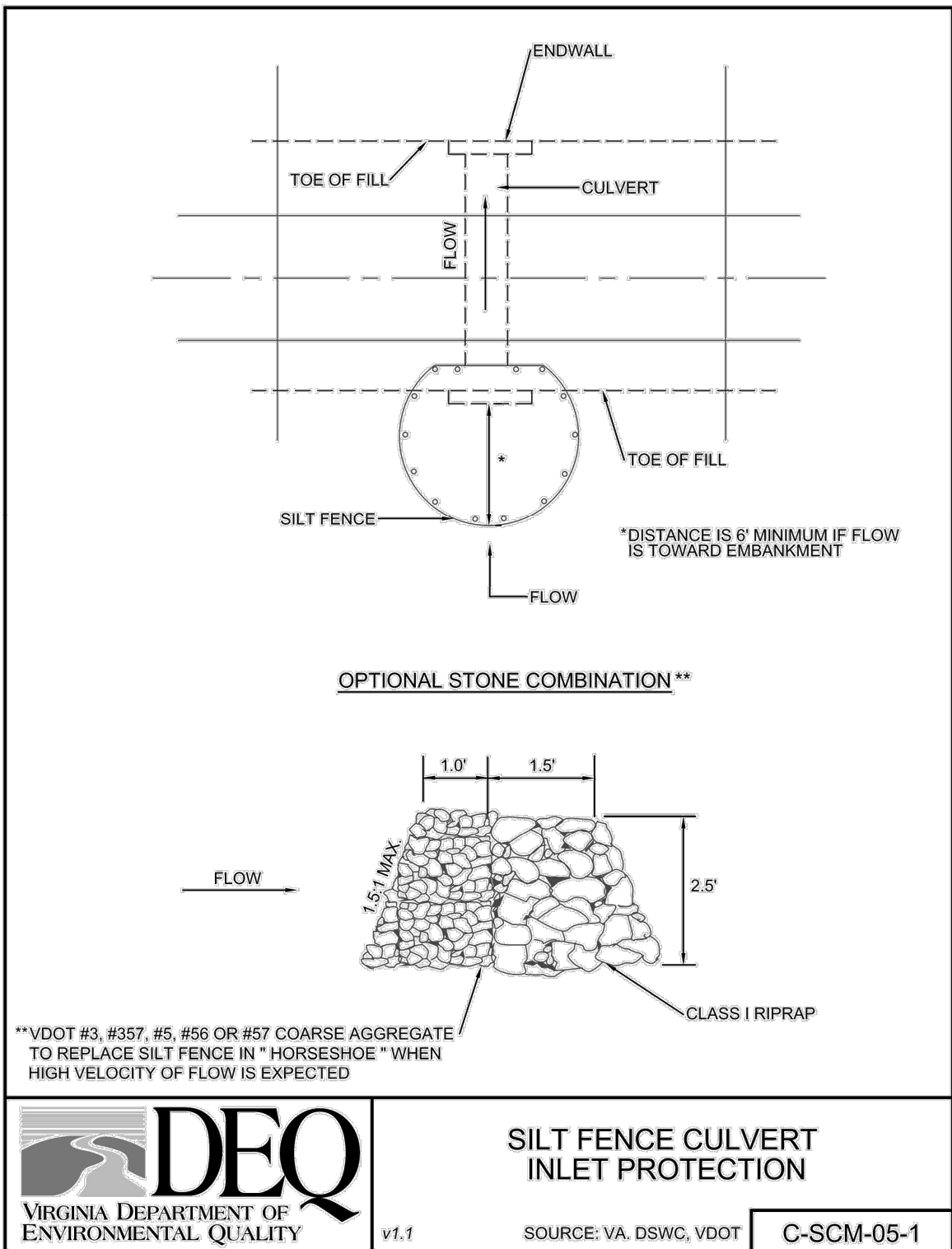
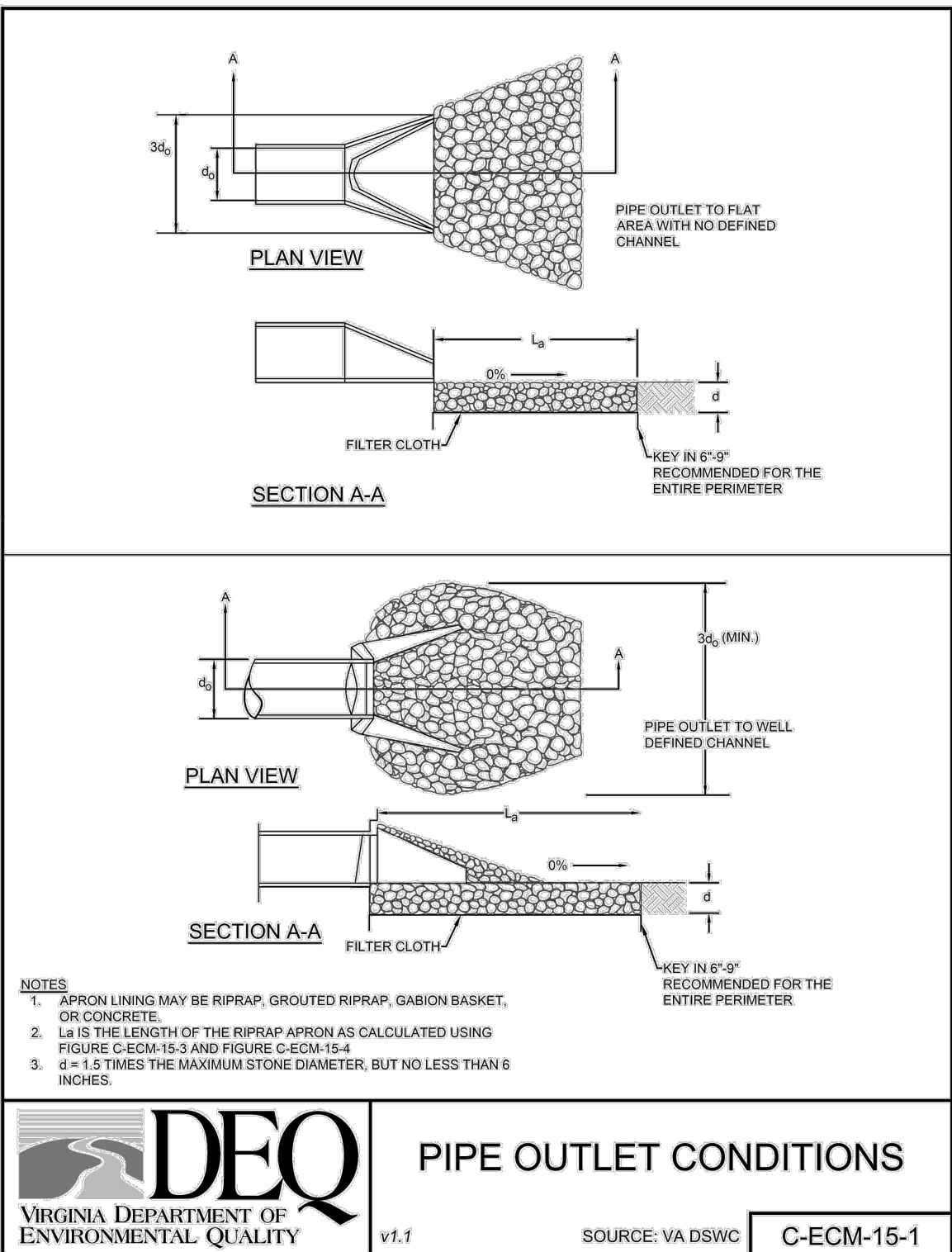
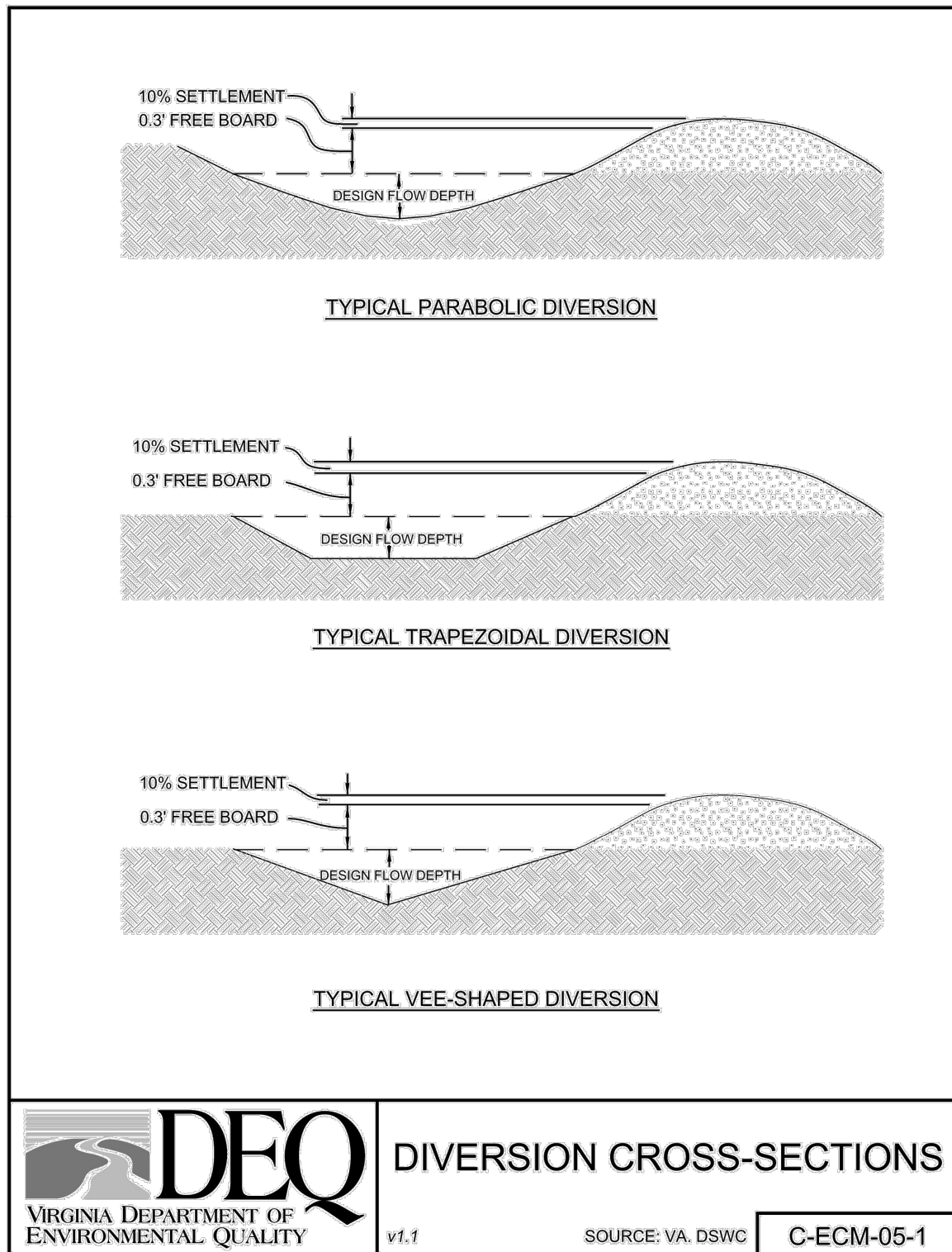
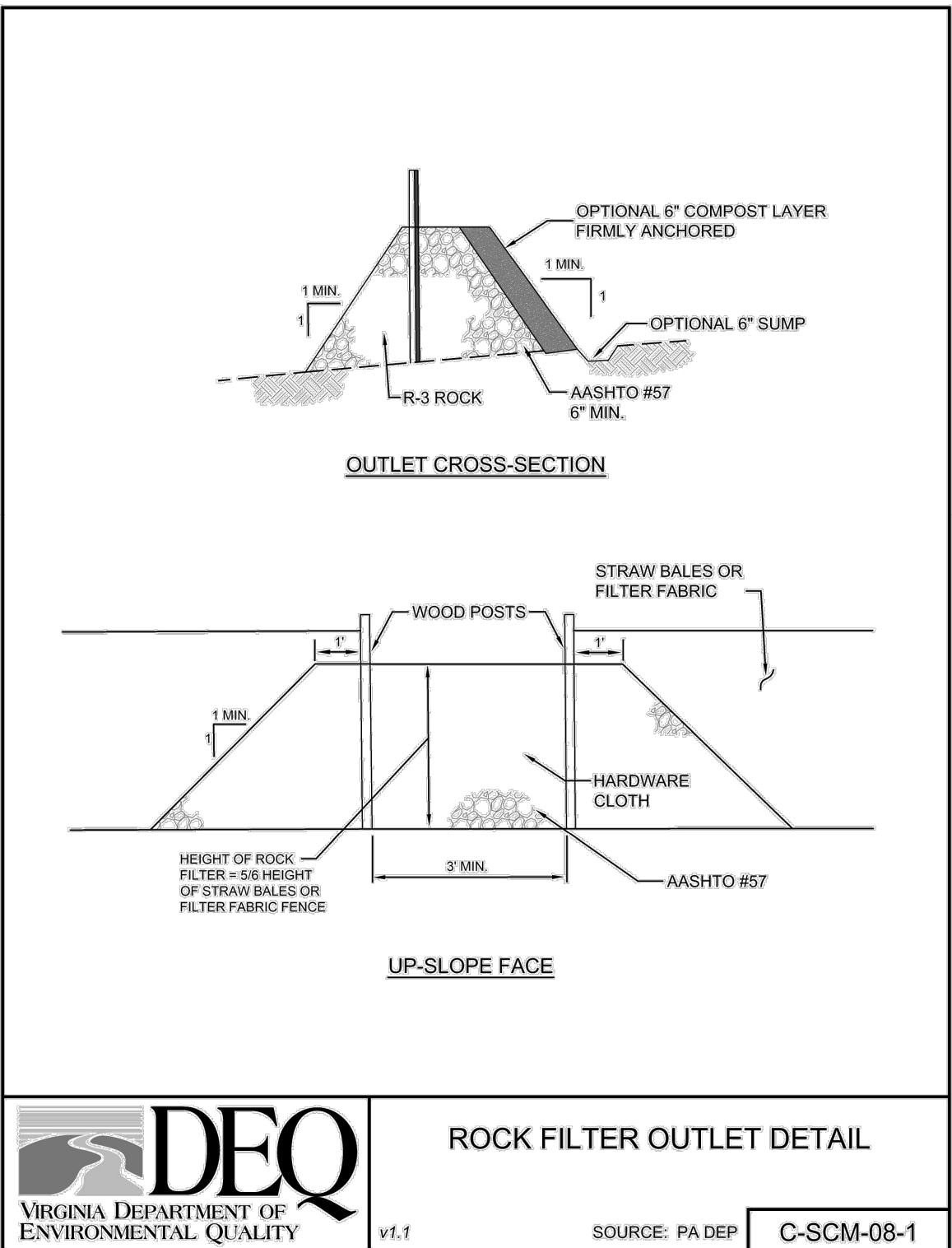
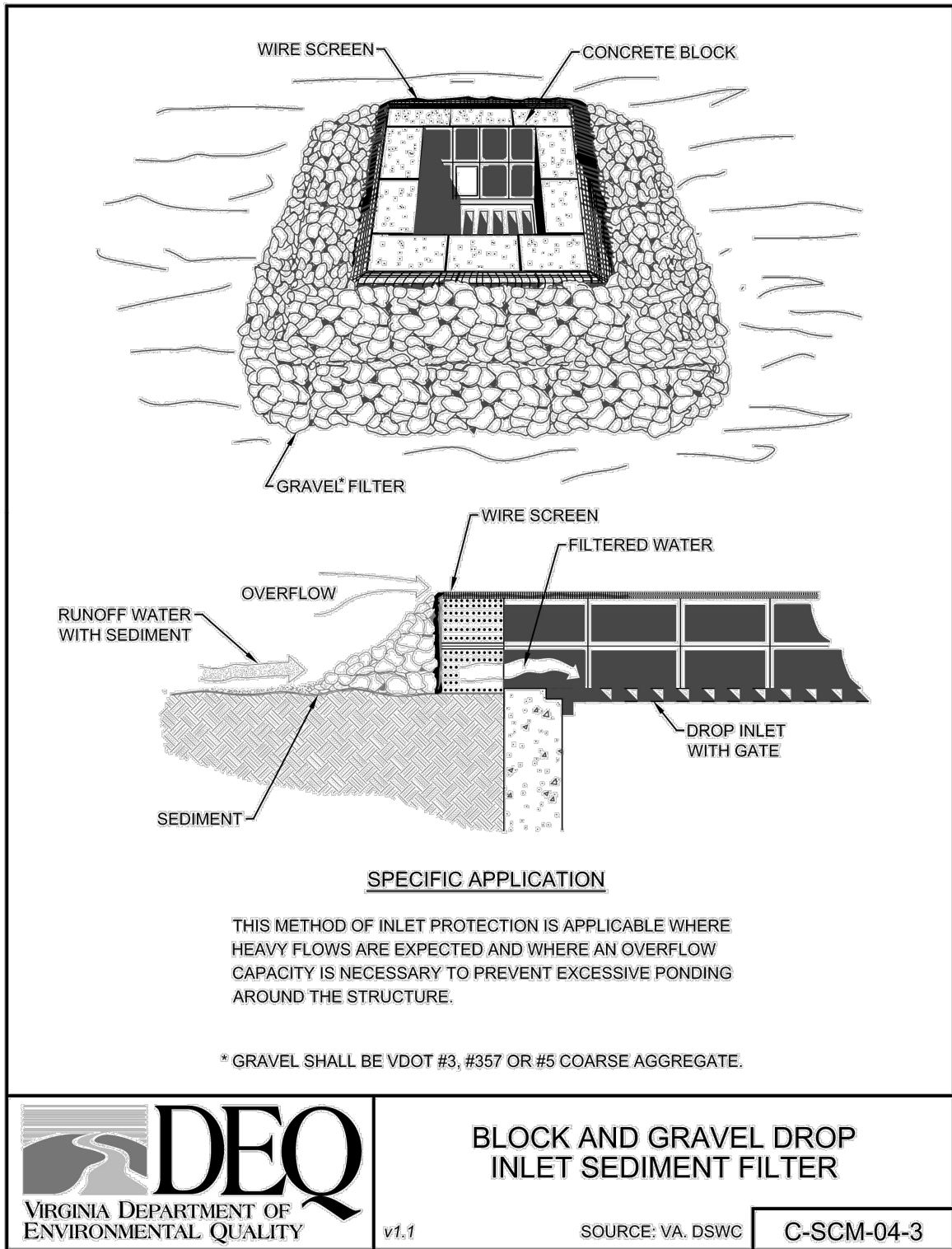
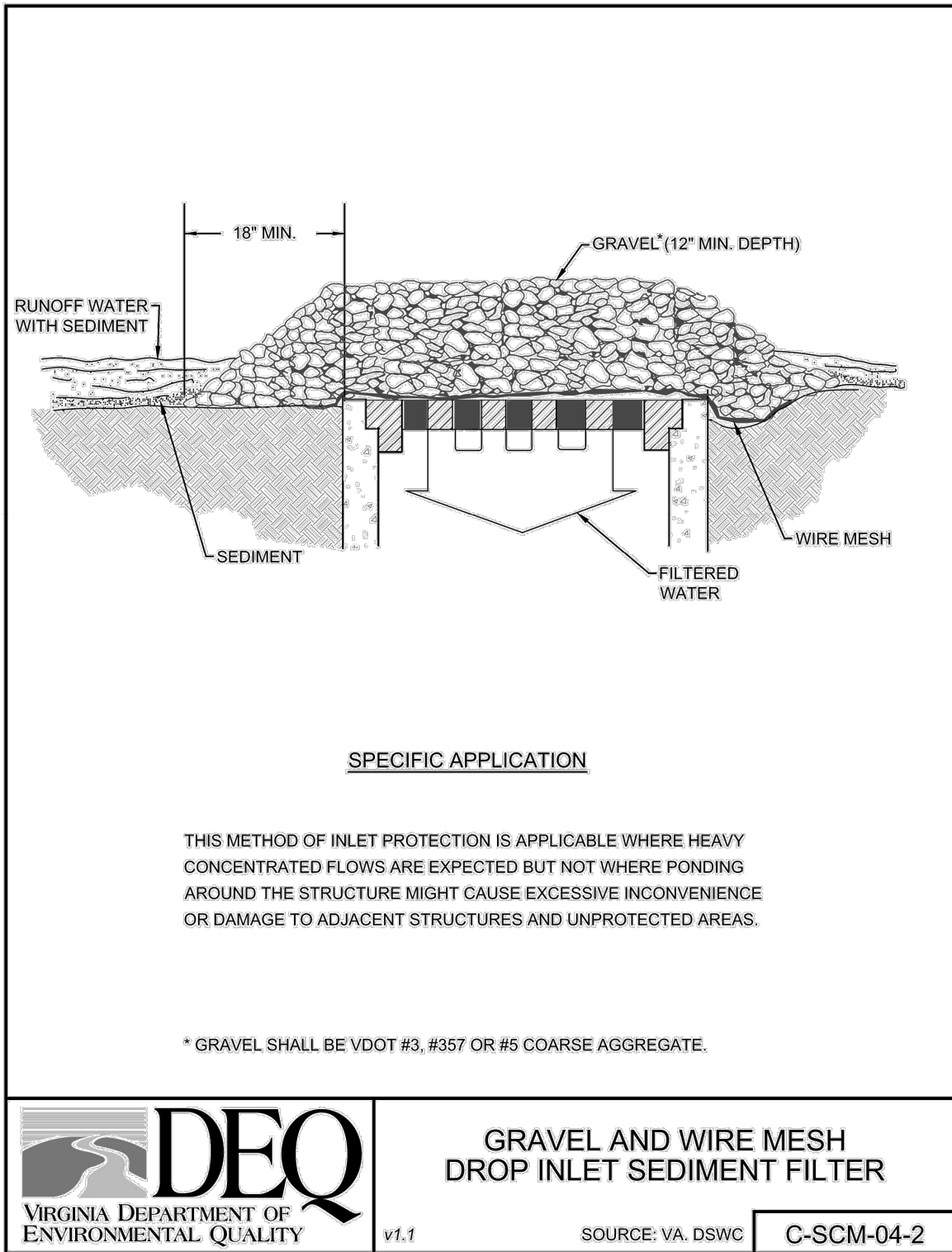
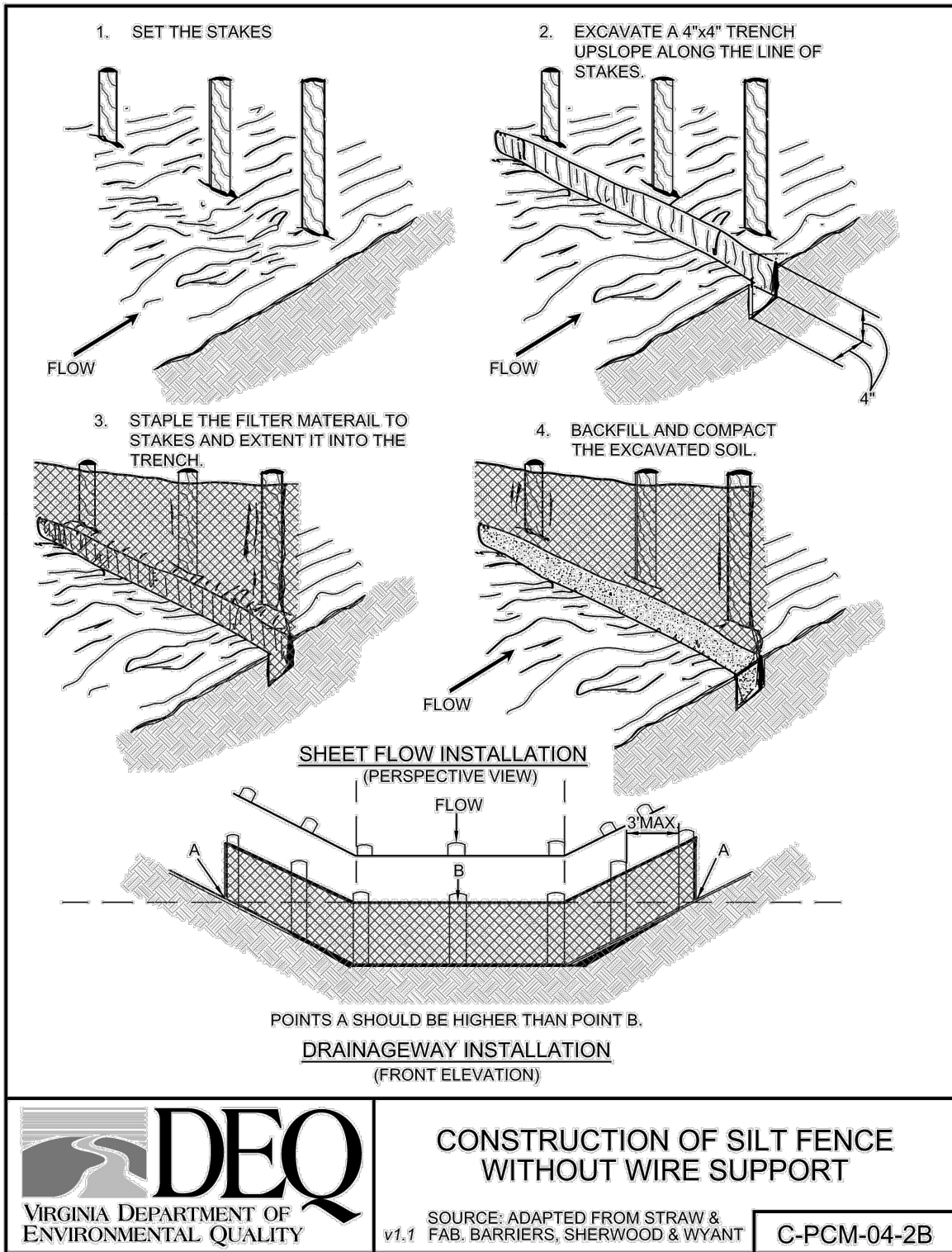
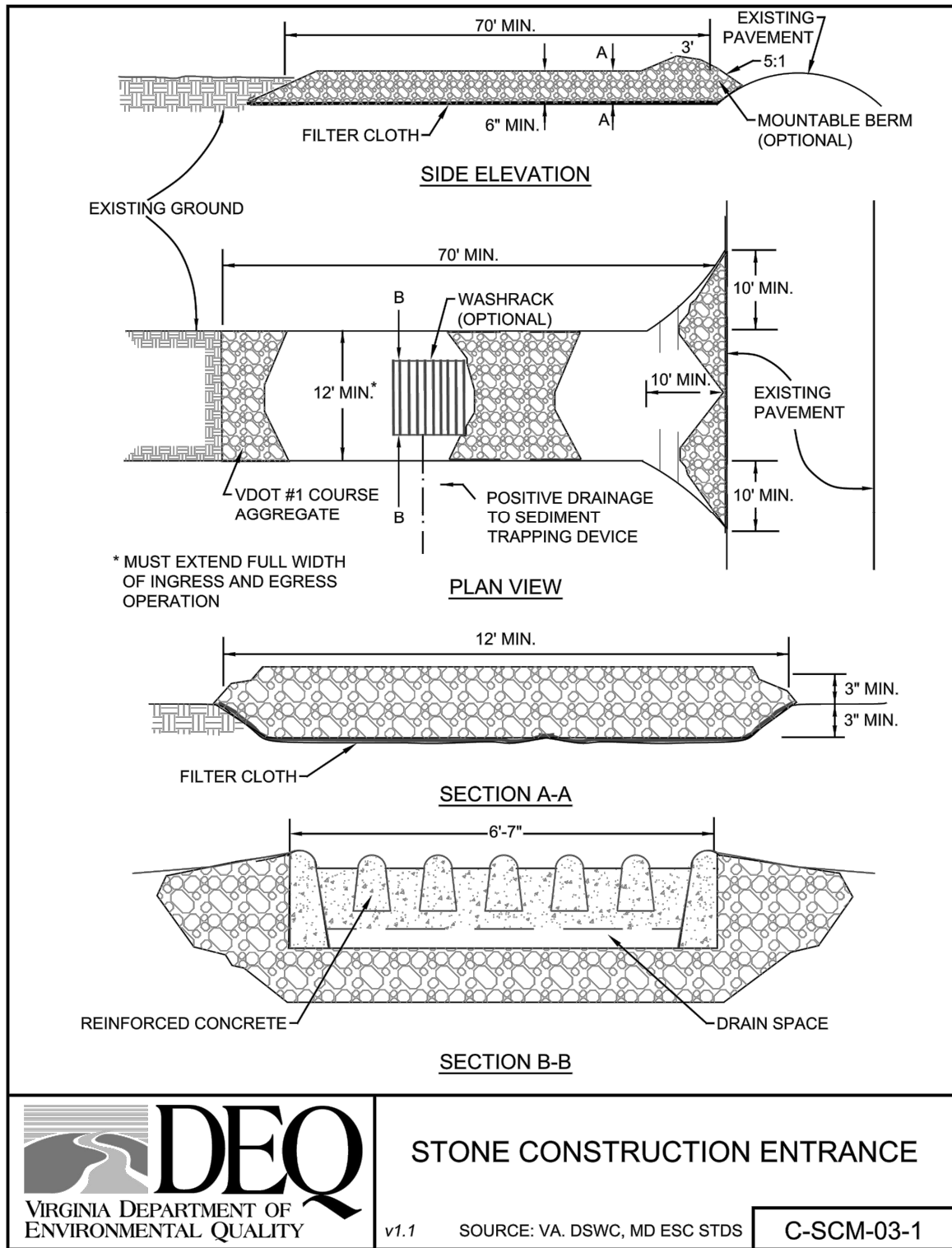
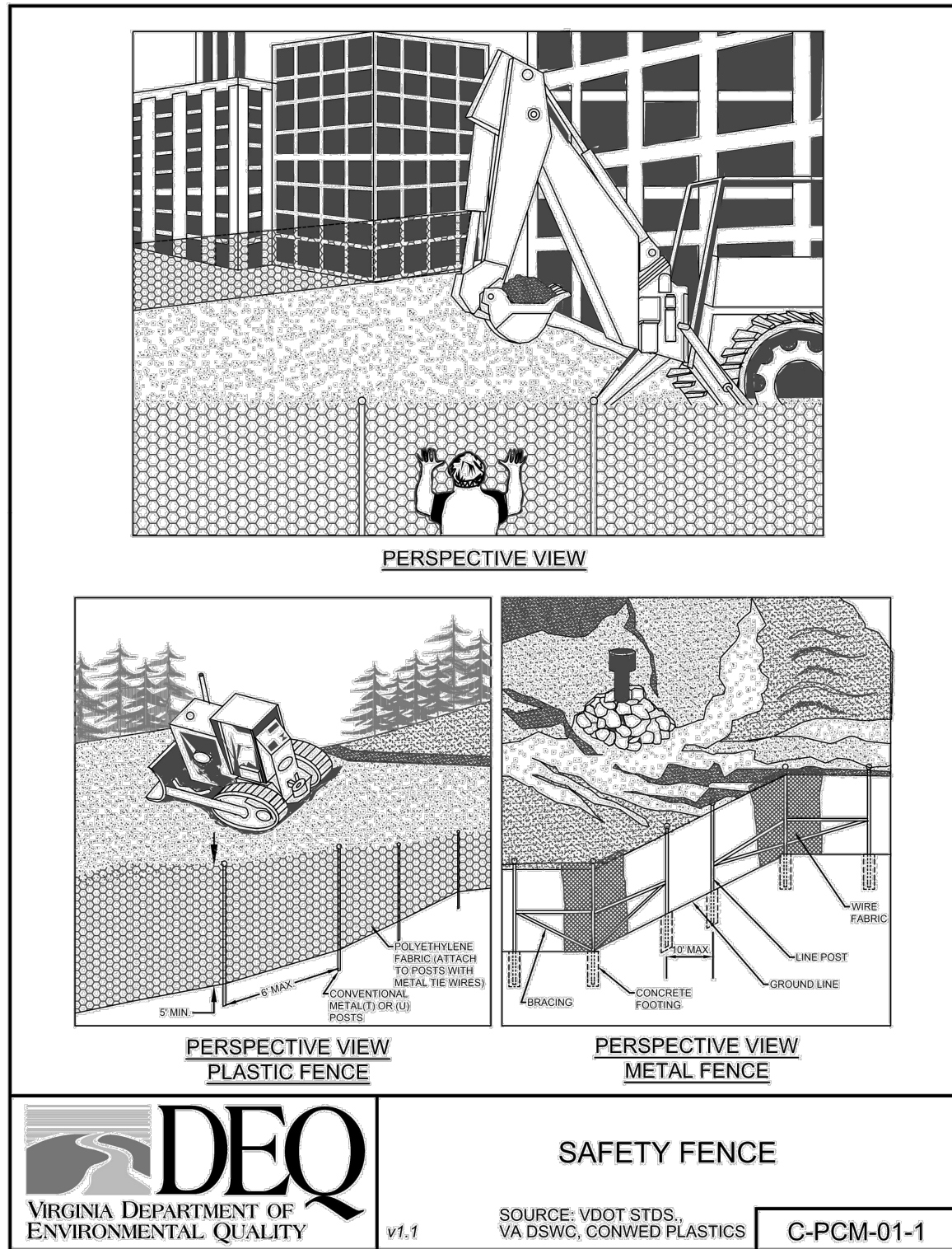
RESTORATION SEQUENCE FOR TEMPORARY WORKSPACE (SECTIONS OF THE PERIMETER FENCE)

SEE SHEETS CP-200 THROUGH CP-205 FOR LOCATIONS OF TEMPORARY WORKSPACE ALONG PERIMETER FENCE.

WHEN CONSTRUCTION IS COMPLETE, CONTRACTOR SHALL RESTORE TEMPORARY WORKSPACE AREAS PER THE RESTORATION SEQUENCE BELOW:

- ENSURE APPROPRIATE PERIMETER CONTROLS ARE INSTALLED AND THAT POSITIVE DRAINAGE TO EROSION CONTROL MEASURES IS MAINTAINED AT ALL TIMES.
- RIP AND/OR SCARIFY SOIL TO A MINIMUM DEPTH OF 4"-6" BELOW GRADE.
- SPREAD TOPSOIL OVER DISTURBED AREAS AND TIE TO ADJACENT AREAS, MAINTAINING POSITIVE DRAINAGE ACROSS NEWLY GRADED AREA TO EROSION CONTROL FEATURES.
- SEED AND STABILIZE AREAS IN ACCORDANCE WITH THE VIR





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COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2015  
PROFESSIONAL ENGINEER

|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
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EROSION AND SEDIMENT CONTROL DETAILS

PROJECT HERCULES

VA

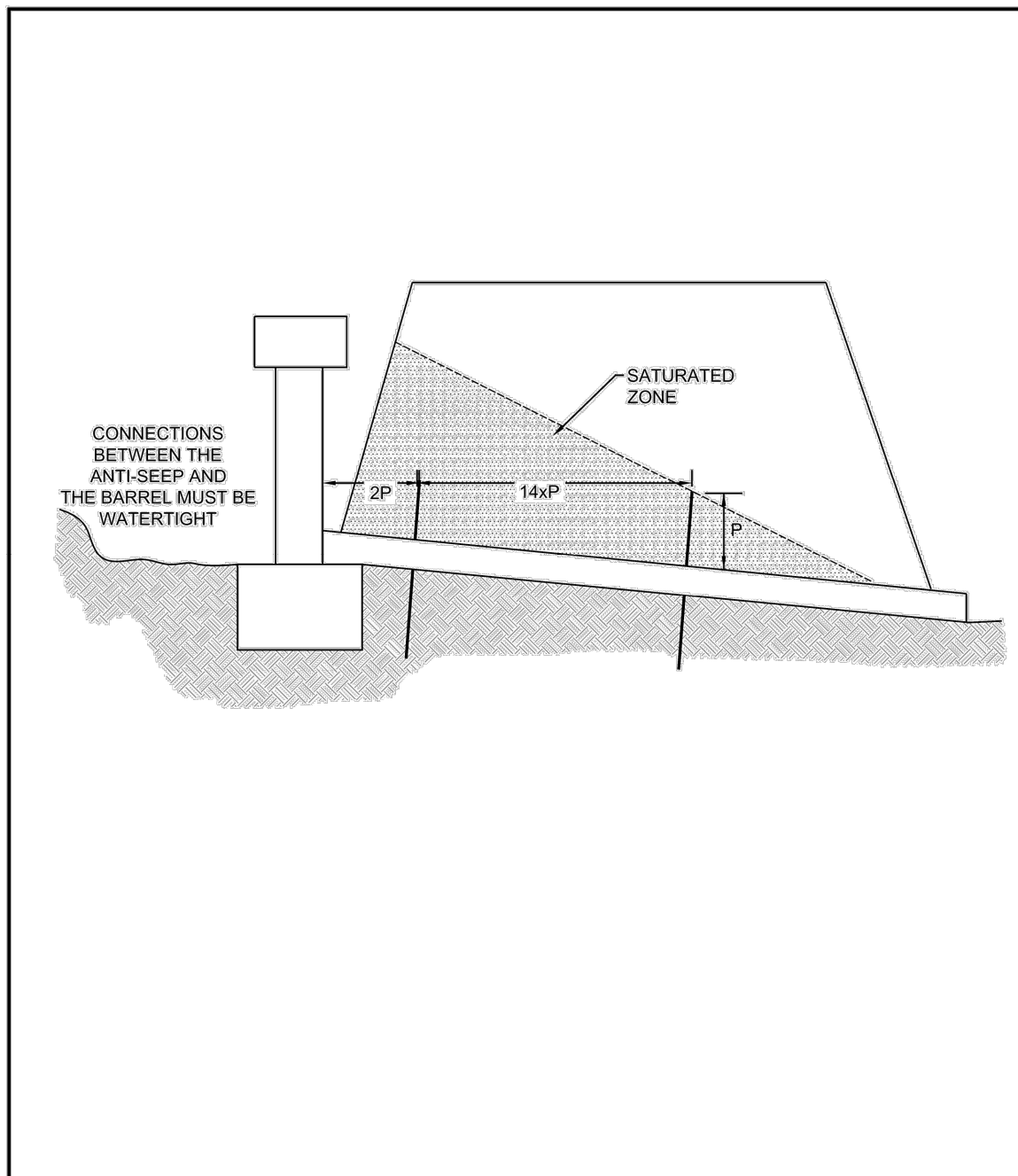
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SHEET NUMBER

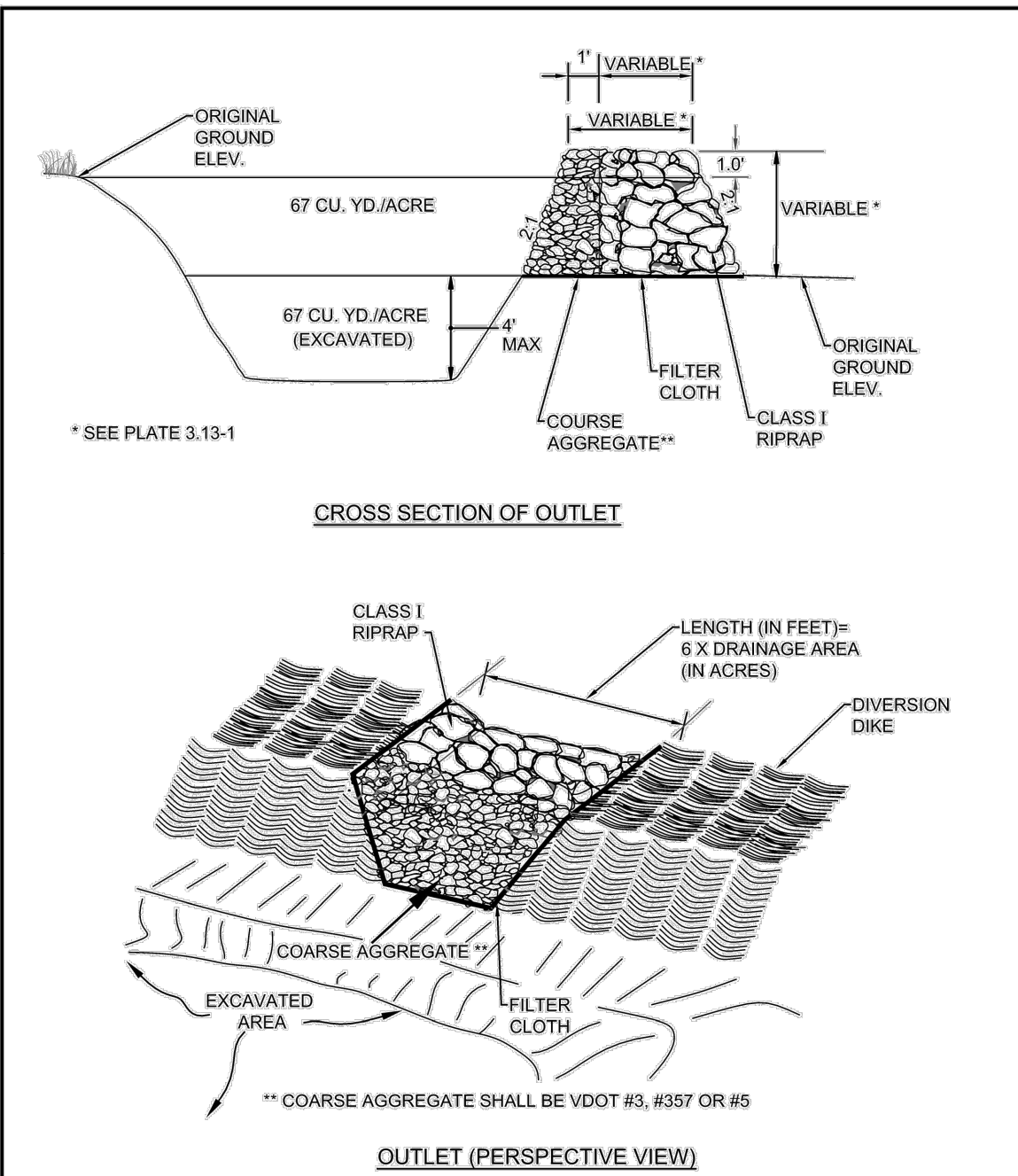
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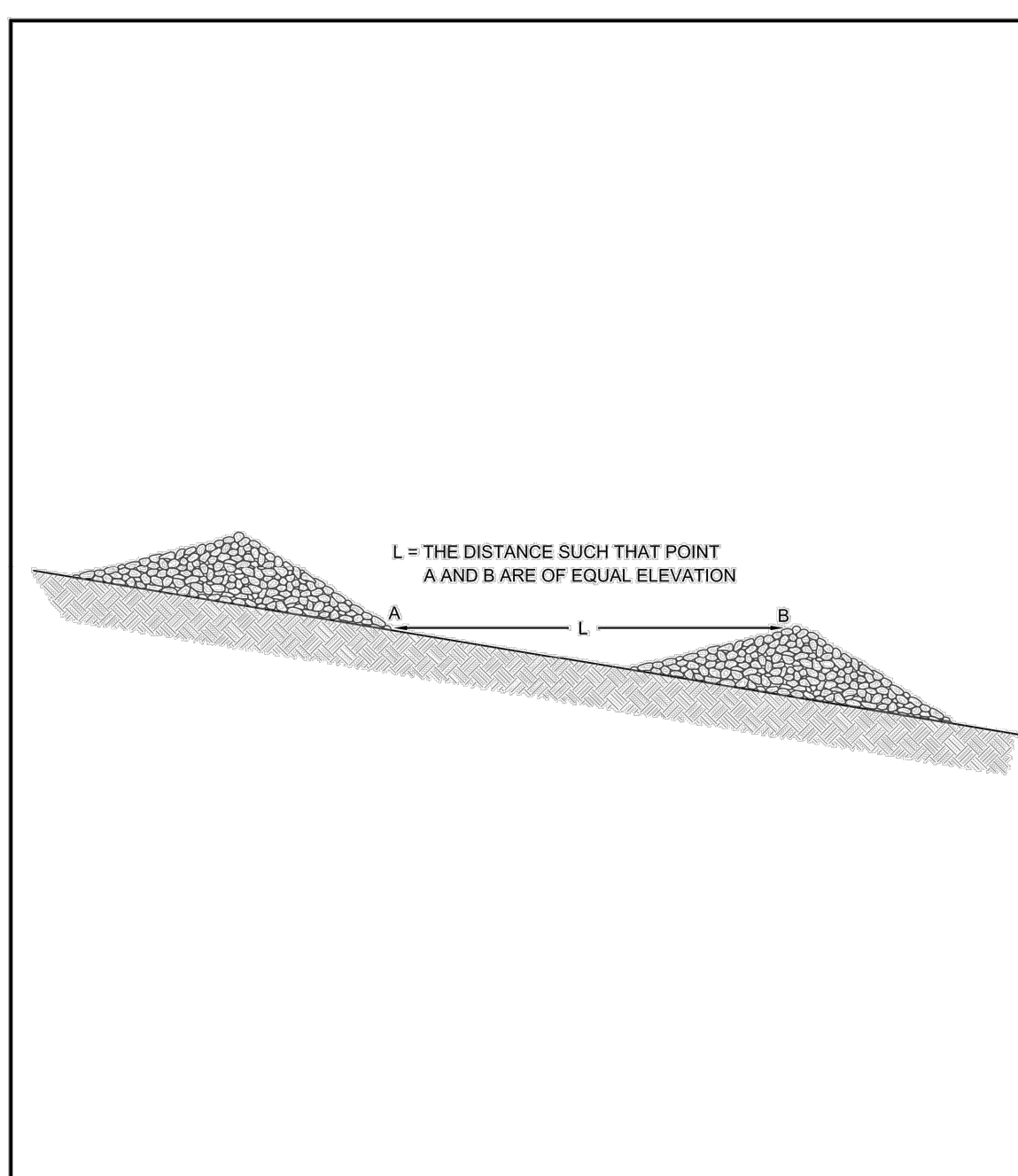
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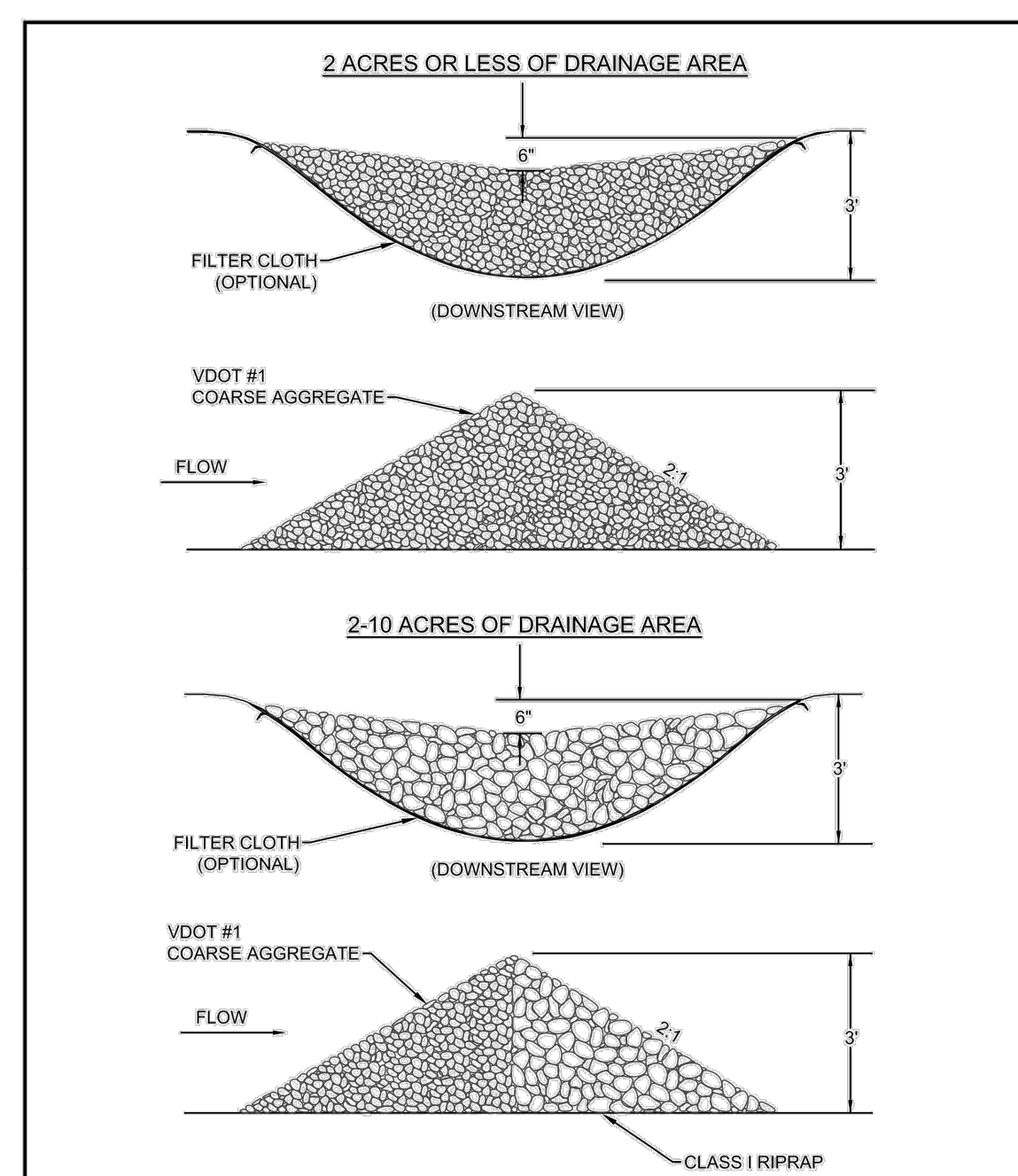
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v1.1 SOURCE: VA, DSWC C-SCM-12-4  
**ANTI-SEEP COLLAR**



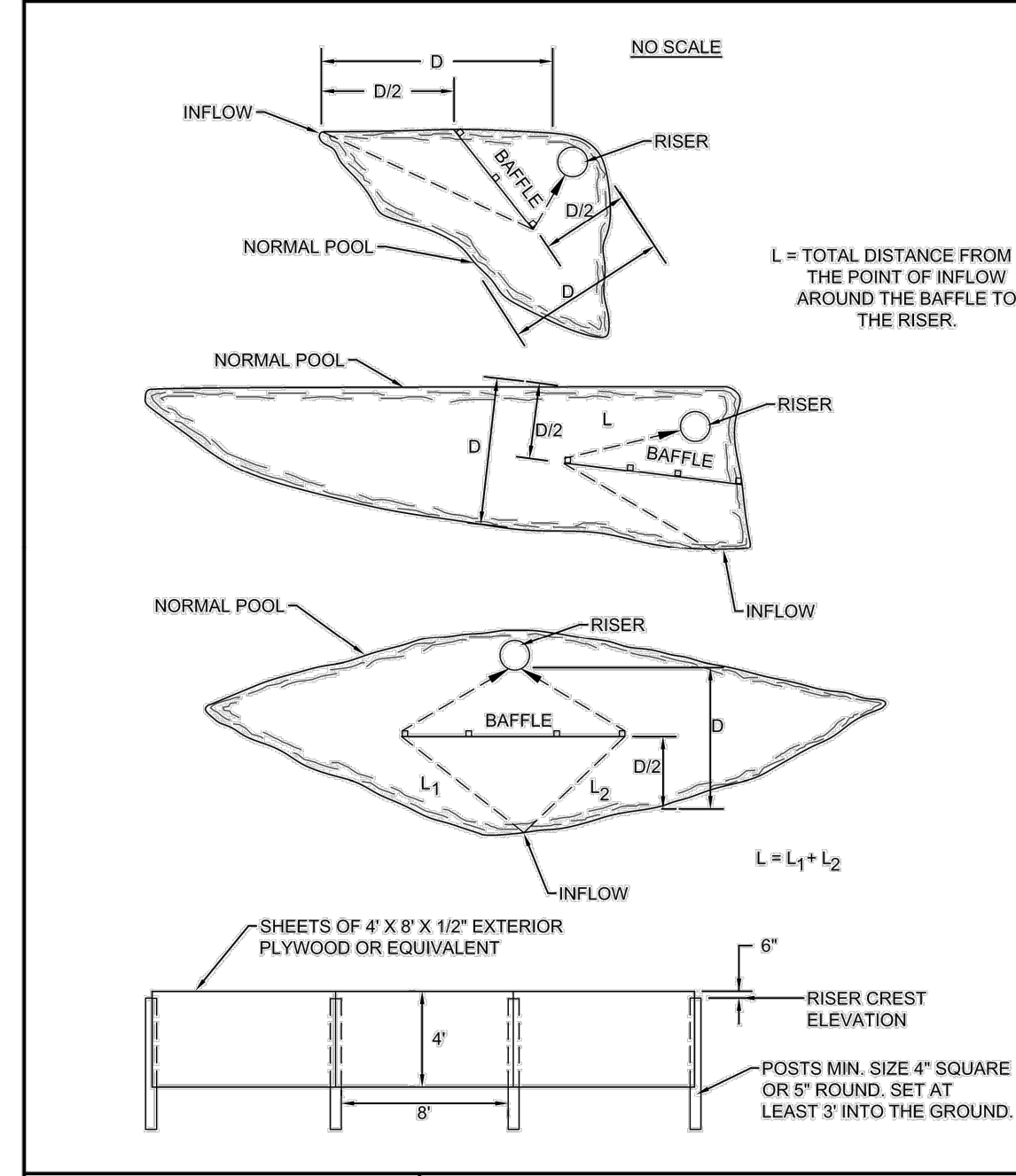
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v1.1 SOURCE: VA, DSWC C-SCM-11-2  
**TEMPORARY SEDIMENT TRAP**



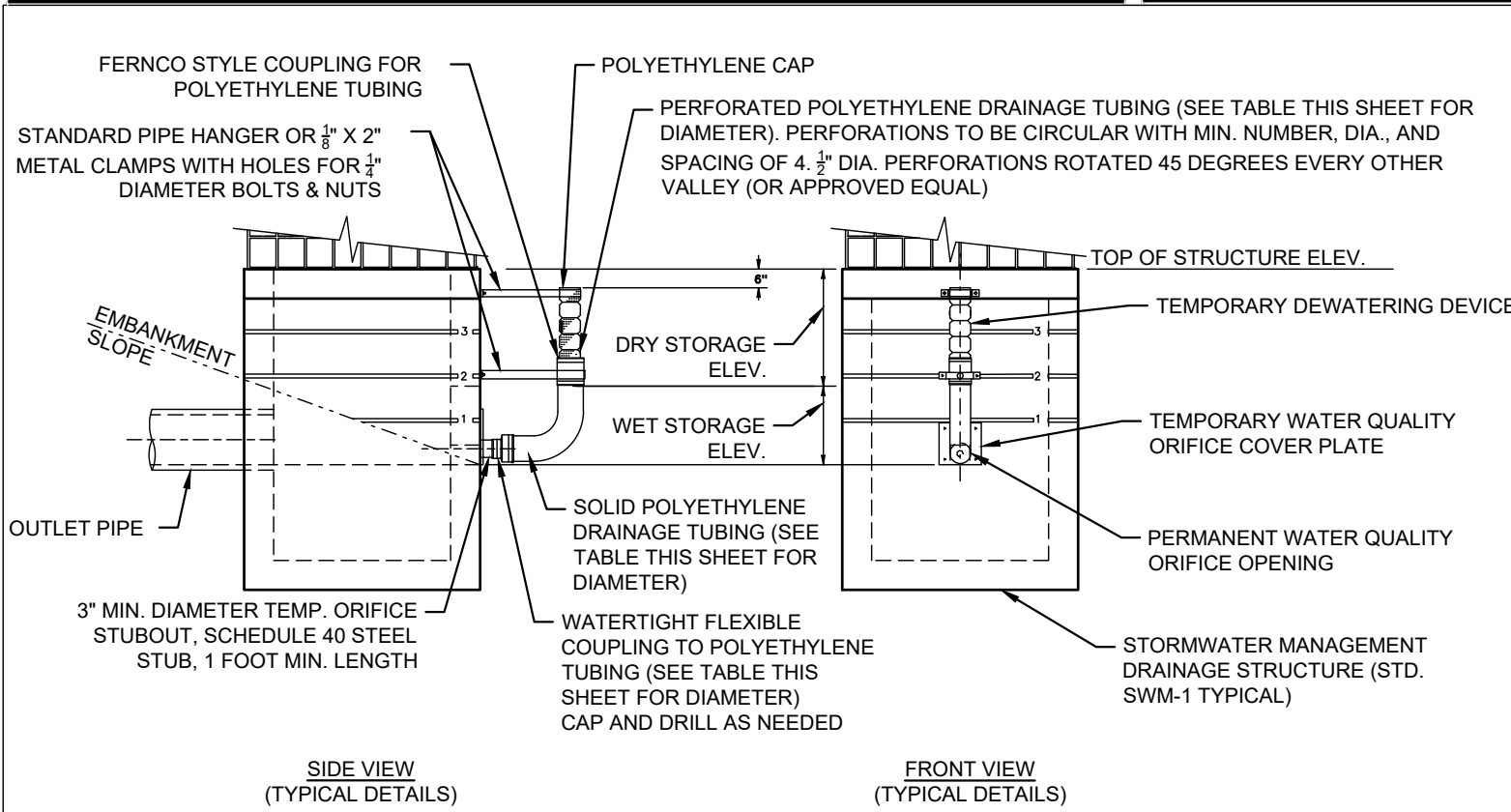
**DEQ** VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
v1.1 SOURCE: DSWC C-SCM-07-2  
**SPACING BETWEEN ROCK CHECK DAMS**



**DEQ** VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
v1.1 SOURCE: VA, DSWC C-SCM-07-1  
**ROCK CHECK DAM**

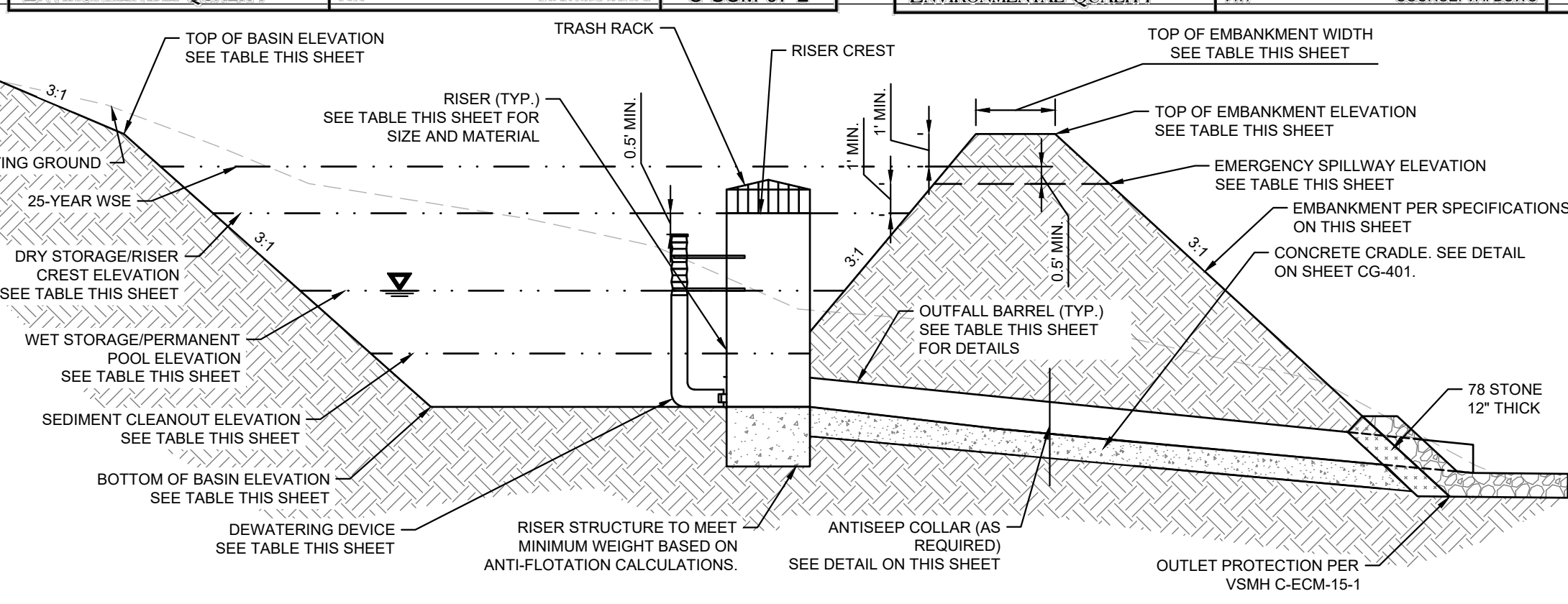


**DEQ** VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY  
v1.1 SOURCE: USDA-SCS C-SCM-12-6  
**EXAMPLE PLAN VIEWS OF BAFFLE LOCATIONS IN SEDIMENT BASINS**



- NOTES:
1. THESE DETAILS ARE TO BE USED TO MODIFY THE PERMANENT STORMWATER MANAGEMENT DRAINAGE STRUCTURE WHERE THE STORMWATER MANAGEMENT BASIN IS TO BE USED FOR A TEMPORARY SEDIMENT BASIN DURING PROJECT CONSTRUCTION.
  2. GRADE STORMWATER MANAGEMENT BASIN AS SHOWN IN PLANS.
  3. ALL OPENINGS (IF ANY) IN SIDE OF STRUCTURE (OTHER THAN PERMANENT WATER QUALITY ORIFICE) ARE TO BE COVERED WITH SOLID METAL PLATES WHILE THE BASIN IS BEING USED FOR SEDIMENT CONTROL.
  4. DEWATERING DEVICE AND COMPONENTS AND TEMPORARY METAL PLATES (IF ANY), AS SHOWN IN THE DETAIL, ARE TO BE REMOVED AND PERMANENT STEEL PLATE WITH WATER QUALITY ORIFICE IS TO BE INSTALLED WHEN BASIN IS NO LONGER NEEDED FOR SEDIMENT CONTROL.
  5. SIMILAR DEVICE MAY ALSO BE USED ON OTHER STORMWATER MANAGEMENT DRAINAGE STRUCTURES.
  6. COST OF TEMPORARY DEWATERING DEVICE AND TEMPORARY METAL PLATES (IF ANY) SHALL BE INCLUDED IN THE BID PRICE FOR STORMWATER MANAGEMENT DRAINAGE STRUCTURE.
  7. THE TEMPORARY POLYETHYLENE DRAINAGE TUBING IS TO BE SOLID FOR THE LENGTH BELOW WET STORAGE ELEVATION AND IS TO BE PERFORATED ABOVE THE WET STORAGE ELEVATION. THE COUPLING IS TO BE WATER TIGHT.
- NOTE: DRAINAGE TUBING SHALL COMPLY WITH ASTM F667 OR AASHTO M294.

## VDOT STORMWATER MANAGEMENT (SWM) DETAIL 302



## TEMP. SEDIMENT BASIN CROSS SECTION WITH EMERGENCY SPILLWAY (NTS)

| SEDIMENT BASIN DESIGN SUMMARY TABLE |                          |               |                           |                 |                 |                          |                             |                 |                 |                       |             |                         |                       |                |                         |                             |                            |                 |                             |                              |                          |                                     |                             |                         |               |                         |                           |             |               |               |           |            |    |
|-------------------------------------|--------------------------|---------------|---------------------------|-----------------|-----------------|--------------------------|-----------------------------|-----------------|-----------------|-----------------------|-------------|-------------------------|-----------------------|----------------|-------------------------|-----------------------------|----------------------------|-----------------|-----------------------------|------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------|---------------|-------------------------|---------------------------|-------------|---------------|---------------|-----------|------------|----|
| BASIN INFORMATION                   |                          |               |                           | WET STORAGE     |                 |                          |                             | DRY STORAGE     |                 | RISER                 |             |                         |                       |                |                         | DEWATERING                  |                            |                 | SPILLWAY                    |                              | EMBANKMENT               |                                     | BAFFLE                      |                         |               | BARREL                  |                           |             |               |               |           |            |    |
| SEDIMENT BASIN NO.                  | SEDIMENT BASIN CONDITION | DRAINAGE AREA | BOTTOM OF BASIN ELEVATION | VOLUME REQUIRED | VOLUME PROVIDED | PERMANENT POOL ELEVATION | SEDIMENT CLEANOUT ELEVATION | VOLUME REQUIRED | VOLUME PROVIDED | DESIGN RISER DIAMETER | RISER SHAPE | CONSTRUCTION RISER SIZE | RISER CREST ELEVATION | RISER MATERIAL | MINIMUM WEIGHT OF RISER | ANTI-VORTEX DEVICE DIAMETER | DEWATERING DEVICE DIAMETER | DEWATERING TIME | DEWATERING DEVICE ELEVATION | EMERGENCY SPILLWAY ELEVATION | EMERGENCY SPILLWAY WIDTH | 25-YR STORM WATER SURFACE ELEVATION | TOP OF EMBANKMENT ELEVATION | TOP OF EMBANKMENT WIDTH | BAFFLE LENGTH | TOP OF BAFFLE ELEVATION | FLOWLENGTH TO WIDTH RATIO | PIPE LENGTH | PIPE DIAMETER | PIPE MATERIAL | INVERT IN | INVERT OUT |    |
|                                     |                          | AC            | FT                        | CF              | CF              | FT                       | FT                          | CF              | CF              | IN                    |             | IN                      | FT                    |                | LBS                     | IN                          | IN                         | HR              | FT                          | FT                           | FT                       | FT                                  | FT                          | FT                      | FT            | FT                      | FT                        |             | FT            | IN            |           | FT         | FT |
| SB-A                                | PERM                     | 27.86         | 707.00                    | 50,399          | 145,324         | 711.00                   | 710.00                      | 50,399          | 307,894         | (1) 60                | Circular    | (1) 60                  | 713.50                | RCP            | 9,797                   | 96                          | 2.9                        | 56.7            | 711.00                      | 715.00                       | 15                       | 714.49                              | 718.00                      | 8                       | 166           | 714.00                  | 1.98                      | 180         | (1) 30        | RCP           | 707.00    | 706.09     |    |
| SB-B                                | PERM                     | 7.66          | 802.00                    | 13,857          | 13,804          | 805.00                   | 804.00                      | 13,857          | 51,400          | (1) 60                | Circular    | (1) 60                  | 807.50                | RCP            | 22,299                  | 96                          | 1.1                        | 107.6           | 805.00                      | 808.60                       | 14                       | 808.07                              | 810.00                      | 15                      | 115           | 808.00                  | 3.79                      | 109         | (1) 24        | RCP           | 792.94    | 782.10     |    |
| SB-C                                | PERM                     | 25.05         | 760.00                    | 45,315          | 72,062          | 764.00                   | 763.00                      | 45,315          | 211,954         | (1) 60                | Circular    | (1) 60                  | 767.60                | RCP            | 11,181                  | 96                          | 3.0                        | 39.7            | 764.00                      | 769.35                       | 24                       | 768.82                              | 771.00                      | 8                       | 107           | 768.10                  | 2.26                      | 293         | (1) 30        | RCP           | 760.00    | 758.18     |    |

\*25-yr storm water surface elevation corresponds to the Ultimate Post Development condition which is more restrictive than the Phase I E&S (bare earth) condition

| PHASE I E&S DITCH DESIGN SUMMARY TABLE |               |                |         |               |       |                |                 |                  |                |                 |                  |       |             |              |             |       |              |            |               |             |              |                |                  |     |
|----------------------------------------|---------------|----------------|---------|---------------|-------|----------------|-----------------|------------------|----------------|-----------------|------------------|-------|-------------|--------------|-------------|-------|--------------|------------|---------------|-------------|--------------|----------------|------------------|-----|
| DITCH SECTION ID                       | DRAINAGE AREA | APPROX. LENGTH | C VALUE | TIME OF CONC. |       | I <sub>2</sub> | I <sub>10</sub> | I <sub>100</sub> | Q <sub>2</sub> | Q <sub>10</sub> | Q <sub>100</sub> | SLOPE | MANNING'S N | BOTTOM WIDTH | SIDE SLOPES |       | DESIGN DEPTH | 2-YR DEPTH | 2-YR VELOCITY | 10-YR DEPTH | 100-YR DEPTH | CHANNEL LINING | APPROX. CHK DAMS |     |
|                                        | ACRES         | FT             |         | MIN           | IN/HR |                |                 |                  |                |                 |                  |       |             |              | IN/HR       | IN/HR |              |            |               |             |              |                |                  | CFS |
|                                        |               |                |         |               |       |                |                 |                  |                |                 |                  |       |             | IN/HR        |             |       |              |            |               |             |              |                |                  |     |
| DIV-1                                  | 7.27          | 722            | 0.50    | 20.87         | 2.80  | 3.79           | 5.11            | 10.16            | 13.78          | 18.58           | 0.01             | 0.02  |             | 5.0          | 3           | 3     | 1.0          | 0.40       | 4.09          | 0.48        | 0.56         | EC-3           | 20               |     |
| DIV-2                                  | 9.06          | 432            | 0.50    | 13.93         | 3.42  | 4.59           | 6.10            | 15.51            | 20.79          | 27.65           | 0.02             | 0.02  |             | 1.0          | 3           | 3     | 2.0          | 0.77       | 6.05          | 0.88        | 0.99         | EC-3           | 6                |     |
| DIV-3                                  | 15.60         | 818            | 0.50    | 14.00         | 3.42  | 4.58           | 6.09            | 26.64            | 35.72          | 47.52           | 0.02             | 0.02  |             | 1.0          | 3           | 3     | 2.0          | 1.04       | 6.23          | 1.18        | 1.32         | EC-3           | 9                |     |

\*Manning's N-value of 0.02 corresponds to "bare earth" land cover

\*Rational Coefficient corresponds to bare earth land cover condition

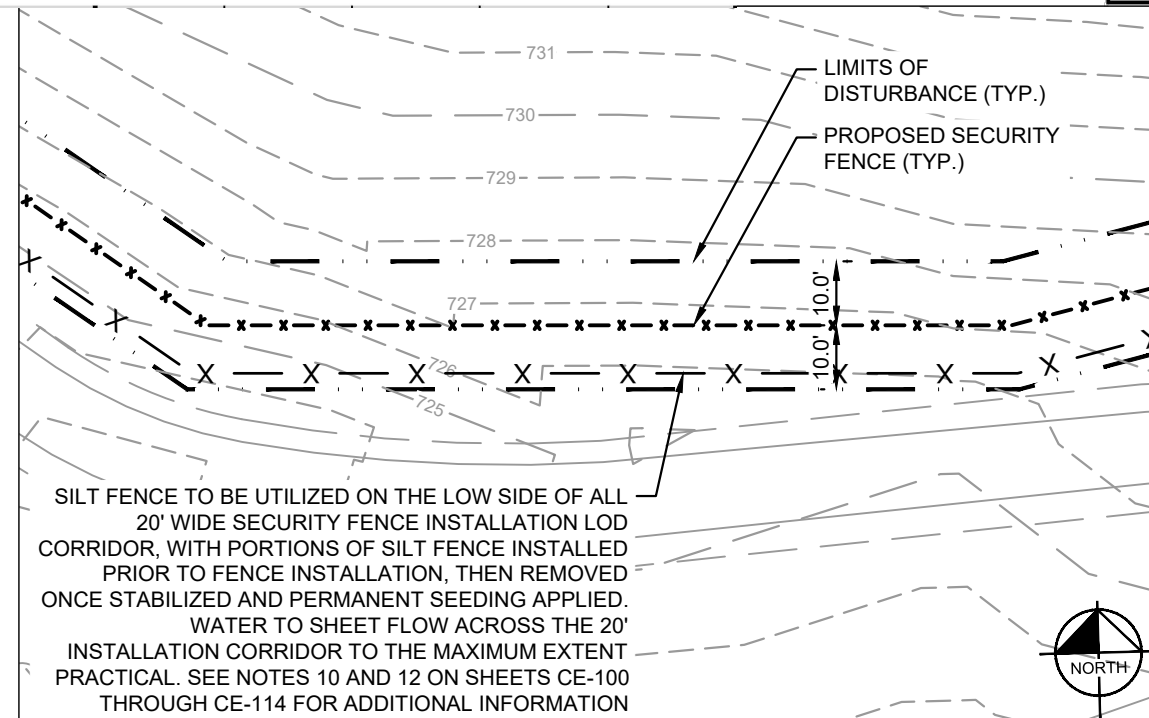
| PHASE II E&S AND POST DEVELOPMENT DITCH DESIGN SUMMARY TABLE |                     |                   |         |               |       |                      |                       |                        |                    |                     |                      |             |             |              |    |             |       |                 |               |                    |                |                 |                |                     |
|--------------------------------------------------------------|---------------------|-------------------|---------|---------------|-------|----------------------|-----------------------|------------------------|--------------------|---------------------|----------------------|-------------|-------------|--------------|----|-------------|-------|-----------------|---------------|--------------------|----------------|-----------------|----------------|---------------------|
| DITCH SECTION ID                                             | DRAINAGE AREA ACRES | APPROX. LENGTH FT | C VALUE | TIME OF CONC. |       | I <sub>2</sub> IN/HR | I <sub>10</sub> IN/HR | I <sub>100</sub> IN/HR | Q <sub>2</sub> CFS | Q <sub>10</sub> CFS | Q <sub>100</sub> CFS | SLOPE FT/FT | MANNING'S N | BOTTOM WIDTH |    | SIDE SLOPES |       | DESIGN DEPTH FT | 2-YR DEPTH FT | 2-YR VELOCITY FT/S | 10-YR DEPTH FT | 100-YR DEPTH FT | CHANNEL LINING | APPROX. CHK DAMS EA |
|                                                              |                     |                   |         | MIN           | IN/HR |                      |                       |                        |                    |                     |                      |             |             | FT           | FT | L           | R     |                 |               |                    |                |                 |                |                     |
|                                                              |                     |                   |         | MIN           | IN/HR |                      |                       |                        |                    |                     |                      |             |             | FT           | FT | FT/FT       | FT/FT |                 |               |                    |                |                 |                |                     |
| SCC-01                                                       | 7.79                | 800               | 0.44    | 20.80         | 2.80  | 3.80                 | 5.12                  | 9.60                   | 13.02              | 17.54               | 0.01                 | 0.02        | 5.0         | 3            | 3  | 1.0         | 0.39  | 4.01            | 0.46          | 0.54               | EC-3           | 22              |                |                     |
| SCC-02                                                       | 7.11                | 531               | 0.34    | 23.80         | 2.60  | 3.54                 | 4.80                  | 6.28                   | 8.56               | 11.60               | 0.05                 | 0.02        | 5.0         | 3            | 3  | 5.0         | 0.21  | 5.40            | 0.25          | 0.30               | EC-3           | 6               |                |                     |
| SCC-03                                                       | 8.34                | 1182              | 0.32    | 17.70         | 3.05  | 4.11                 | 5.51                  | 8.14                   | 10.98              | 14.71               | 0.01                 | 0.02        | 0.0         | 3            | 3  | 2.5         | 0.82  | 3.99            | 0.92          | 1.03               | EC-2           | 6               |                |                     |
| SCC-04                                                       | 6.69                | 680               | 0.73    | 5.00          | 4.93  | 6.49                 | 8.51                  | 24.09                  | 31.68              | 41.55               | 0.01                 | 0.02        | 0.0         | 3            | 3  | 2.5         | 1.24  | 5.23            | 1.37          | 1.52               | EC-3           | 4               |                |                     |
| SCC-05                                                       | 1.60                | 262               | 0.78    | 5.00          | 4.93  | 6.49                 | 8.51                  | 6.16                   | 8.10               | 10.62               | 0.03                 | 0.02        | 0.0         | 3            | 3  | 2.5         | 0.59  | 5.82            | 0.66          | 0.73               | EC-3           | 5               |                |                     |
| SCC-06                                                       |                     | 94                |         |               |       |                      |                       |                        | 9.98               | 42.39               | 73.32                | 0.05        | 0.02        | 0.0          | 3  | 3           | 2.5   | 0.68            | 7.36          | 1.15               | 1.42           | EC-3            | 3              |                     |

\*Manning's N-value of 0.02 corresponds to "bare earth" land cover

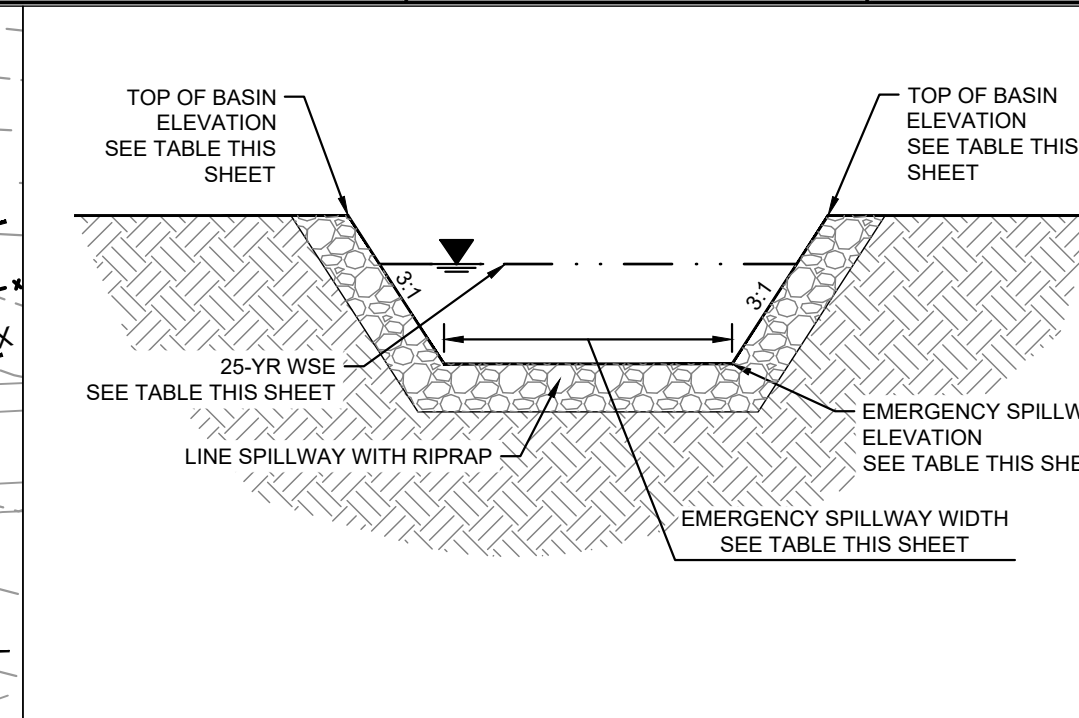
\*Rational Coefficient corresponds to most restrictive land cover type between Phase I E&S (bare earth) and the Ultimate Post Development condition

\*SCC-06 was conservatively calculated by combining the flows from SCC-03 with the peak flows exiting Pond C

| SEDIMENT TRAP DESIGN SUMMARY TABLE |                         |               |                          |                 |                 |                          |                 |                 |                         |                             |                         |            |        |             |               |                |    |
|------------------------------------|-------------------------|---------------|--------------------------|-----------------|-----------------|--------------------------|-----------------|-----------------|-------------------------|-----------------------------|-------------------------|------------|--------|-------------|---------------|----------------|----|
| SEDIMENT TRAP NO.                  | SEDIMENT TRAP CONDITION | DRAINAGE AREA | BOTTOM OF TRAP ELEVATION | WET STORAGE     |                 |                          | DRY STORAGE     |                 |                         | EMBANKMENT                  |                         | DIMENSIONS |        |             |               |                |    |
|                                    |                         |               |                          | VOLUME REQUIRED | VOLUME PROVIDED | BASE OF OUTLET ELEVATION | VOLUME REQUIRED | VOLUME PROVIDED | TOP OF OUTLET ELEVATION | TOP OF EMBANKMENT ELEVATION | TOP OF EMBANKMENT WIDTH | WIDTH      | LENGTH | SIDE SLOPES | OUTLET LENGTH | GRADED OPENING |    |
|                                    |                         |               |                          | CF              | CF              | FT                       | CF              | CF              | FT                      | FT                          | FT                      | FT         | FT     | FT          | N/A           | FT             | FT |
| N/A                                | N/A                     | AC            | FT                       | CF              | CF              | FT                       | CF              | CF              | FT                      | FT                          | FT                      | FT         | FT     | FT          | N/A           | FT             | FT |
| ST-1                               | TEMP                    | 2.87          | 730.50                   | 5,192           | 6,591           | 732.00                   | 5,192           | 8,491           | 733.50                  | 734.50                      | 8                       | 40         | 100    | 3:1         | 17            | 22             |    |
| ST-2                               | TEMP                    | 1.62          | 751.00                   | 2,931           | 3,619           | 752.50                   | 2,931           | 5,134           | 754.00                  | 755.00                      | 8                       | 25         | 80     | 3:1         | 10            | 15             |    |
| ST-3                               | TEMP                    | 2.96          | 766.50                   | 5,355           | 9,391           | 768.00                   | 5,355           | 11,508          | 769.50                  | 770.50                      | 8                       | 61         | 95     | 3:1         | 18            | 23             |    |
| ST-4                               | TEMP                    | 2.27          | 756.00                   | 4,106           | 6,362           | 757.50                   | 4,106           | 8,037           | 759.00                  | 760.00                      | 8                       | 60         | 65     | 3:1         | 14            | 19             |    |



## ESC SECURITY FENCE TYP. DETAIL

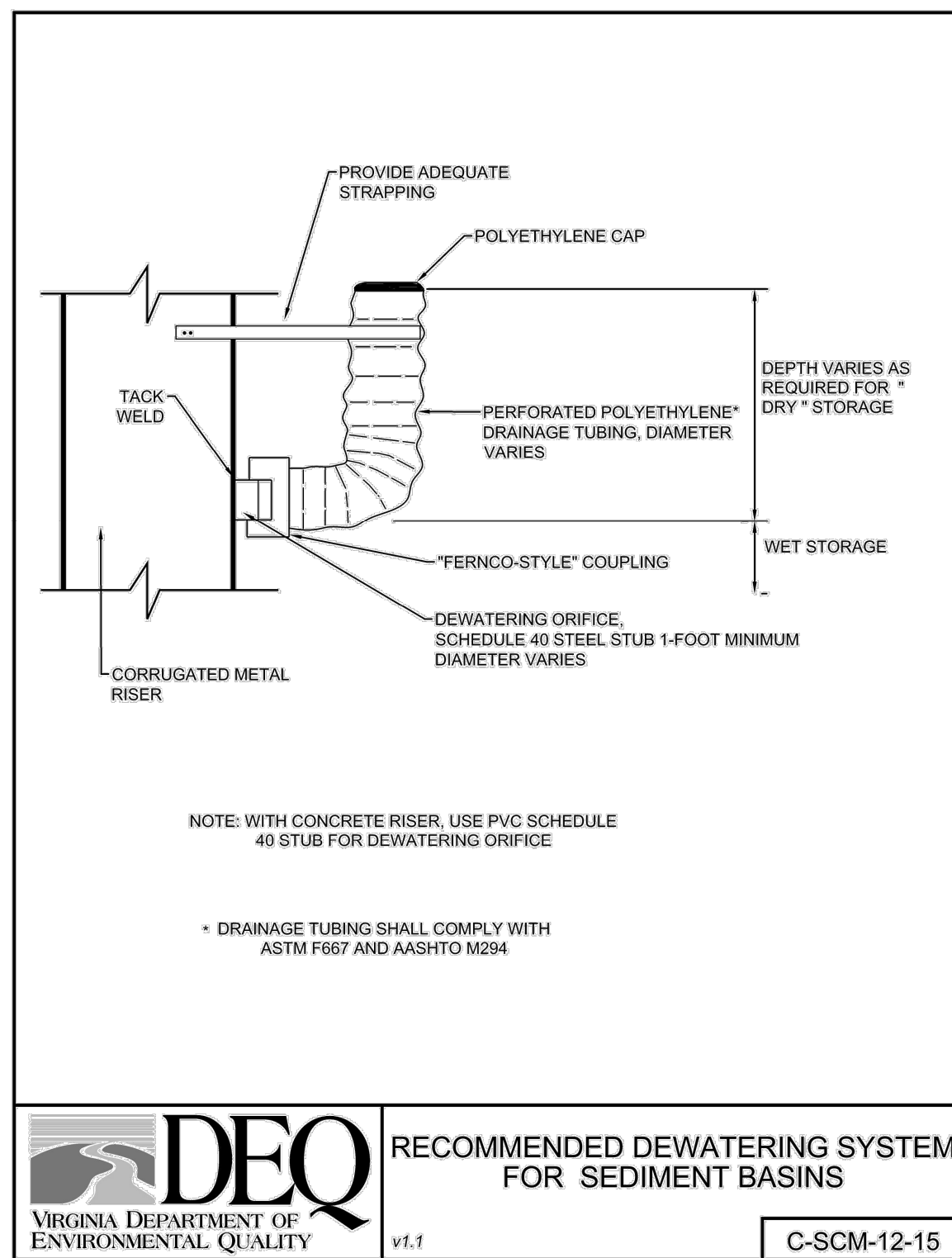
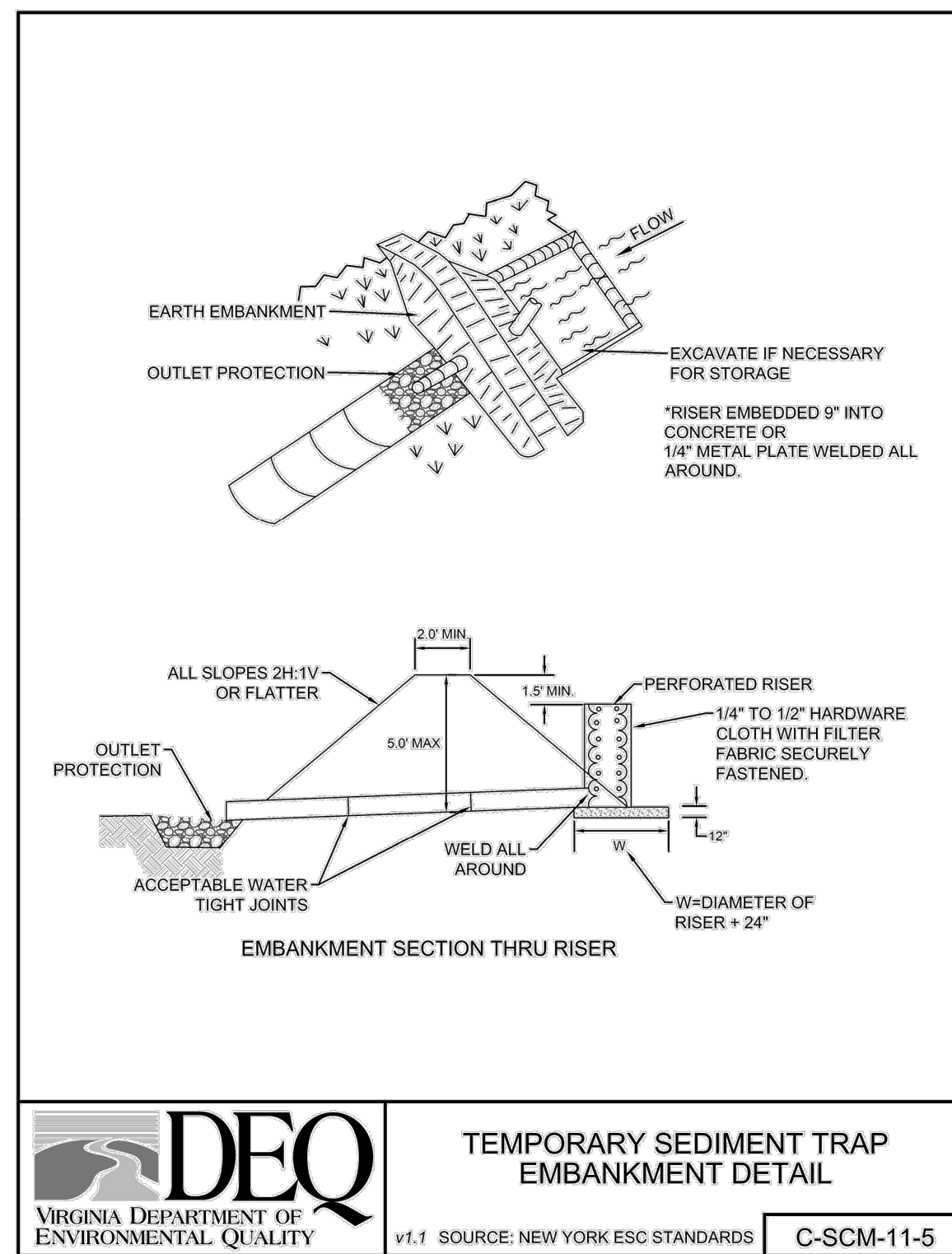
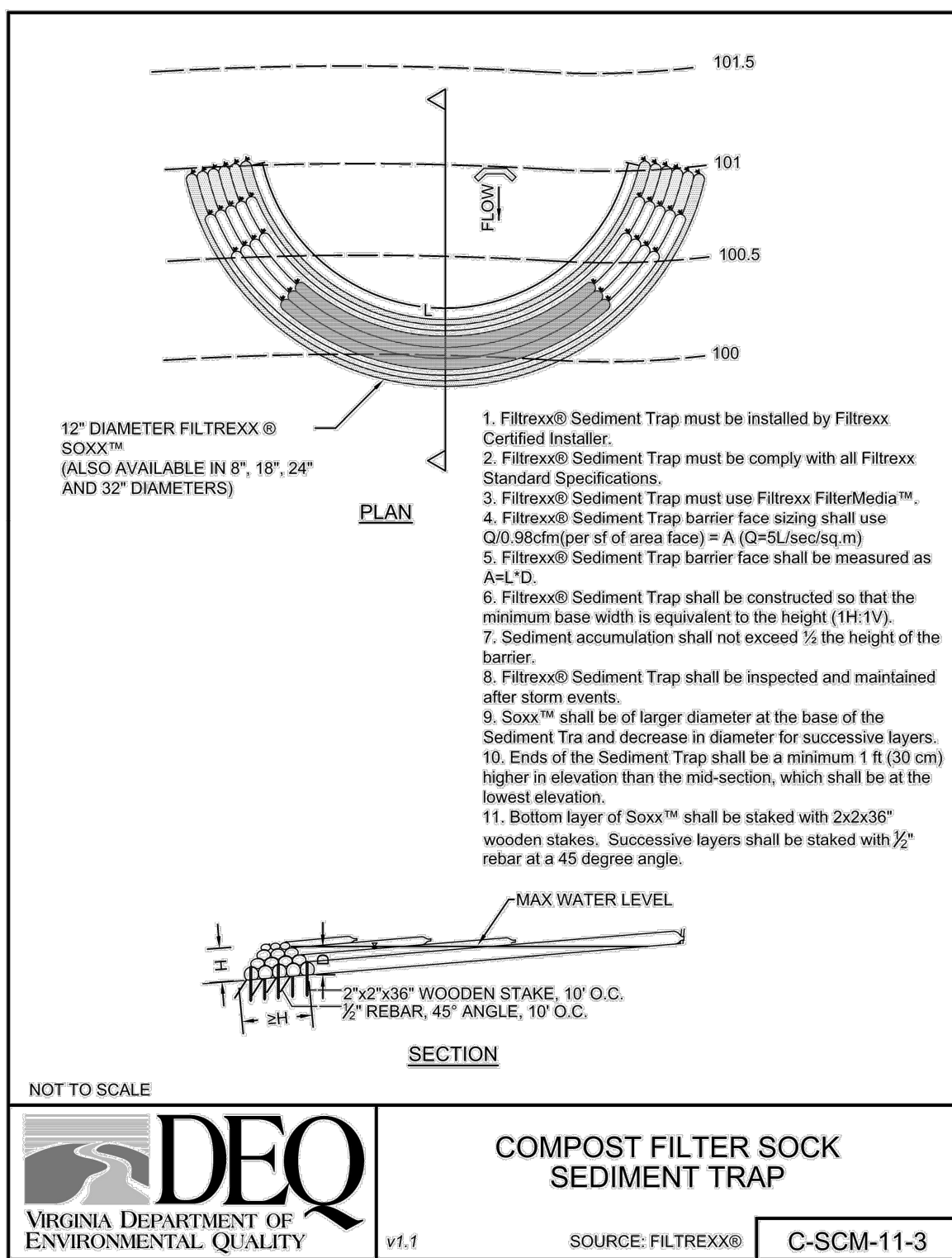
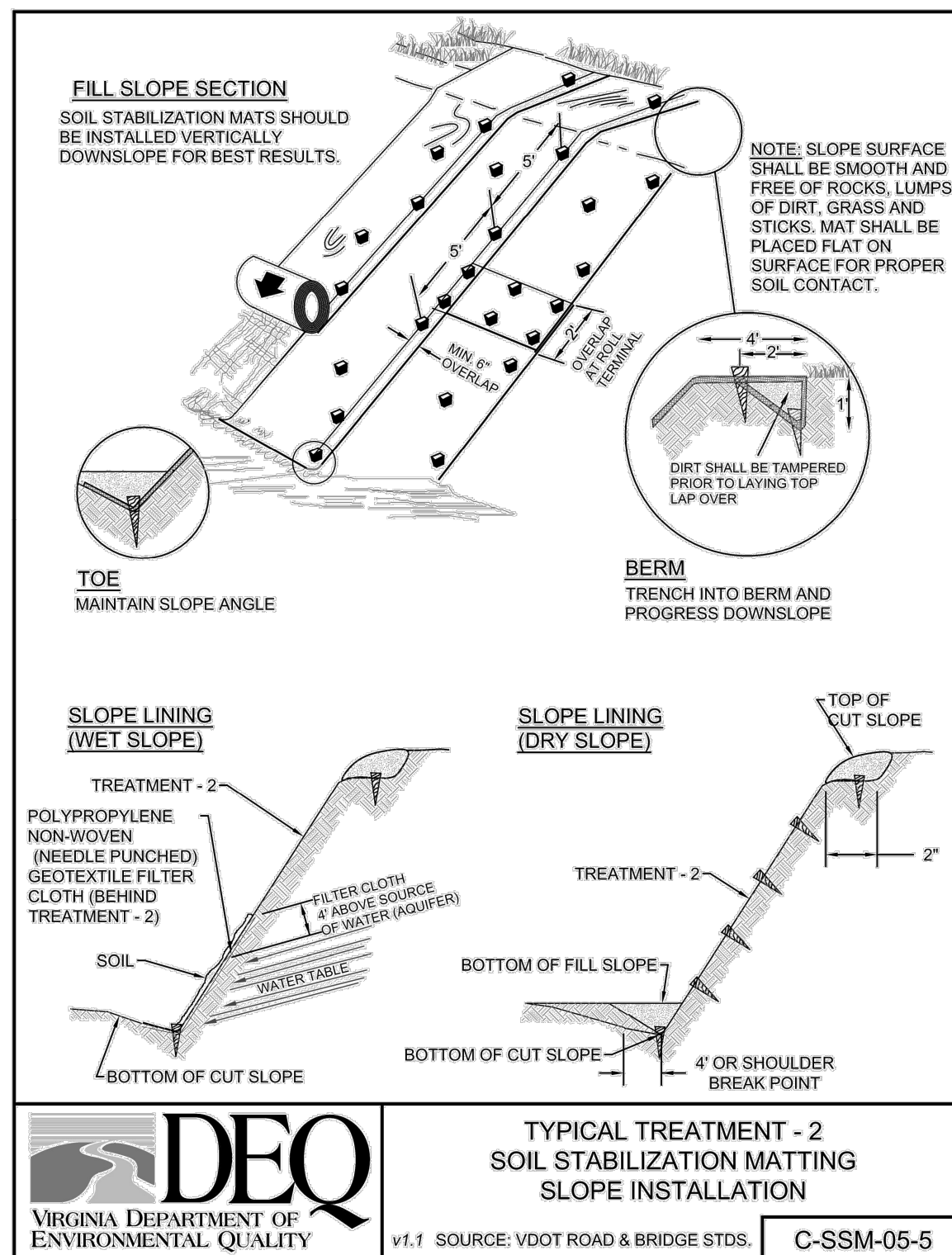
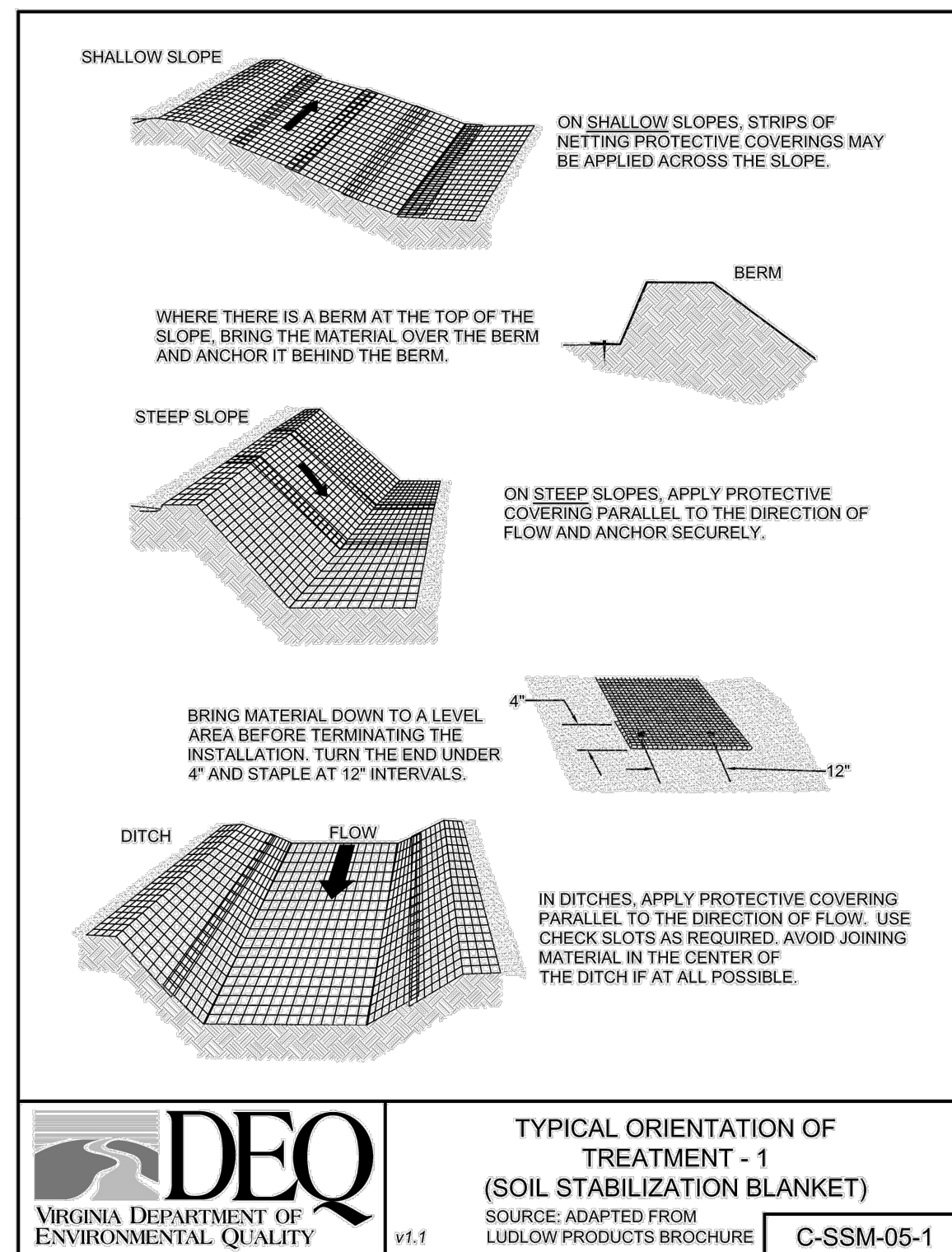
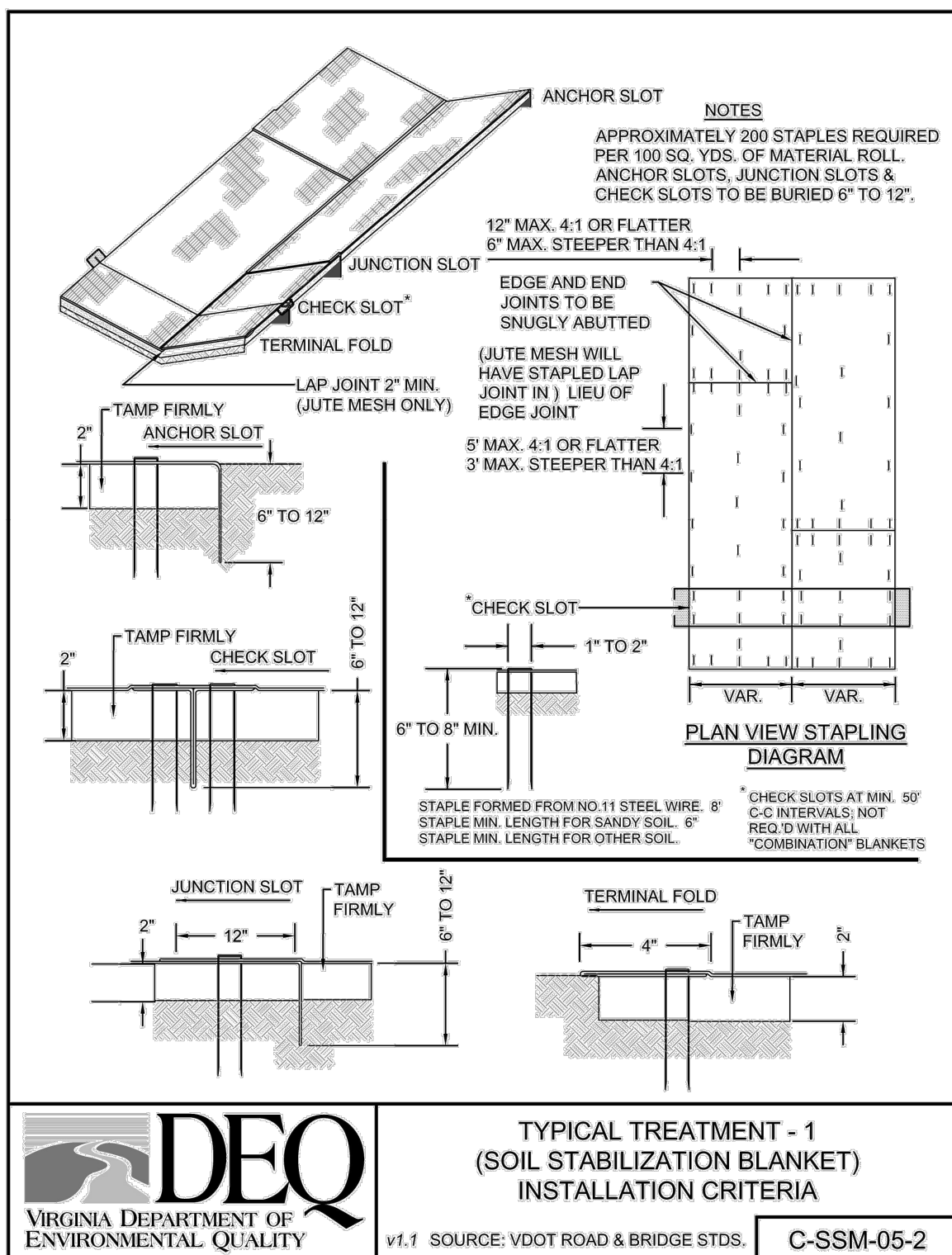


## EMERGENCY SPILLWAY CROSS SECTION

| BASIN RIPRAP OUTLET PROTECTION SUMMARY |                                        |                               |                     |                                |                                   |                       |                   |                |                                |                                   |                       |               |                                   |                        |                        |
|----------------------------------------|----------------------------------------|-------------------------------|---------------------|--------------------------------|-----------------------------------|-----------------------|-------------------|----------------|--------------------------------|-----------------------------------|-----------------------|---------------|-----------------------------------|------------------------|------------------------|
| OUTFALL NO.                            | OUTLET PIPE DIAMETER (D <sub>o</sub> ) | 25-YR PEAK DISCHARGE (24 HRS) | TAILWATER CONDITION | APRON (PER BARREL)             |                                   | BARREL                |                   | TOTAL APRON    |                                |                                   |                       | STONE         |                                   |                        |                        |
|                                        |                                        |                               |                     | APRON LENGTH (L <sub>a</sub> ) | UPSTREAM WIDTH (3D <sub>o</sub> ) | DOWN-STREAM WIDTH (W) | NUMBER OF BARRELS | BARREL SPACING | APRON LENGTH (L <sub>a</sub> ) | UPSTREAM WIDTH (3D <sub>o</sub> ) | DOWN-STREAM WIDTH (W) | AREA OF APRON | STONE DIAMETER (d <sub>50</sub> ) | THICKNESS OF STONE (T) | APPROX. STONE QUANTITY |
|                                        |                                        |                               |                     | FT                             | FT                                | FT                    | EA                | FT             | FT                             | FT                                | FT                    | SF            | FT                                | FT                     | CY                     |
| PO-01                                  | 30                                     | 54.3                          | MIN                 | 24.0                           | 7.5                               | 26.5                  | 1                 |                | 24.0                           | 7.5                               | 26.5                  | 408           | 1.0                               | 2.0                    | 30                     |
| PO-02                                  | 24                                     | 22.4                          | MIN                 | 14.0                           | 6.0                               | 16.0                  | 1                 |                | 14.0                           | 6.0                               | 16.0                  | 154           | 0.5                               | 1.0                    | 6                      |
| S111                                   | 30                                     | 54.9                          | MIN                 | 24.0                           | 7.5                               | 26.5                  | 1                 |                | 24.0                           | 7.5                               | 26.5                  | 408           | 1.0                               | 2.0                    | 30                     |

THE 25-YEAR PEAK DISCHARGE UTILIZED IS THE MORE CONSERVATIVE VALUE BETWEEN THE 25-YEAR PEAK FLOW LEAVING SEDIMENT BASINS A, B, AND C AND THEIR CORRESPONDING WET PONDS FOLLOWING CONVERSION.



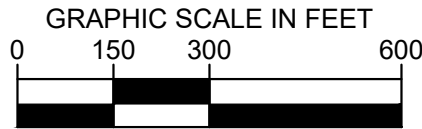
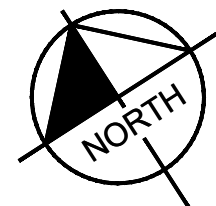
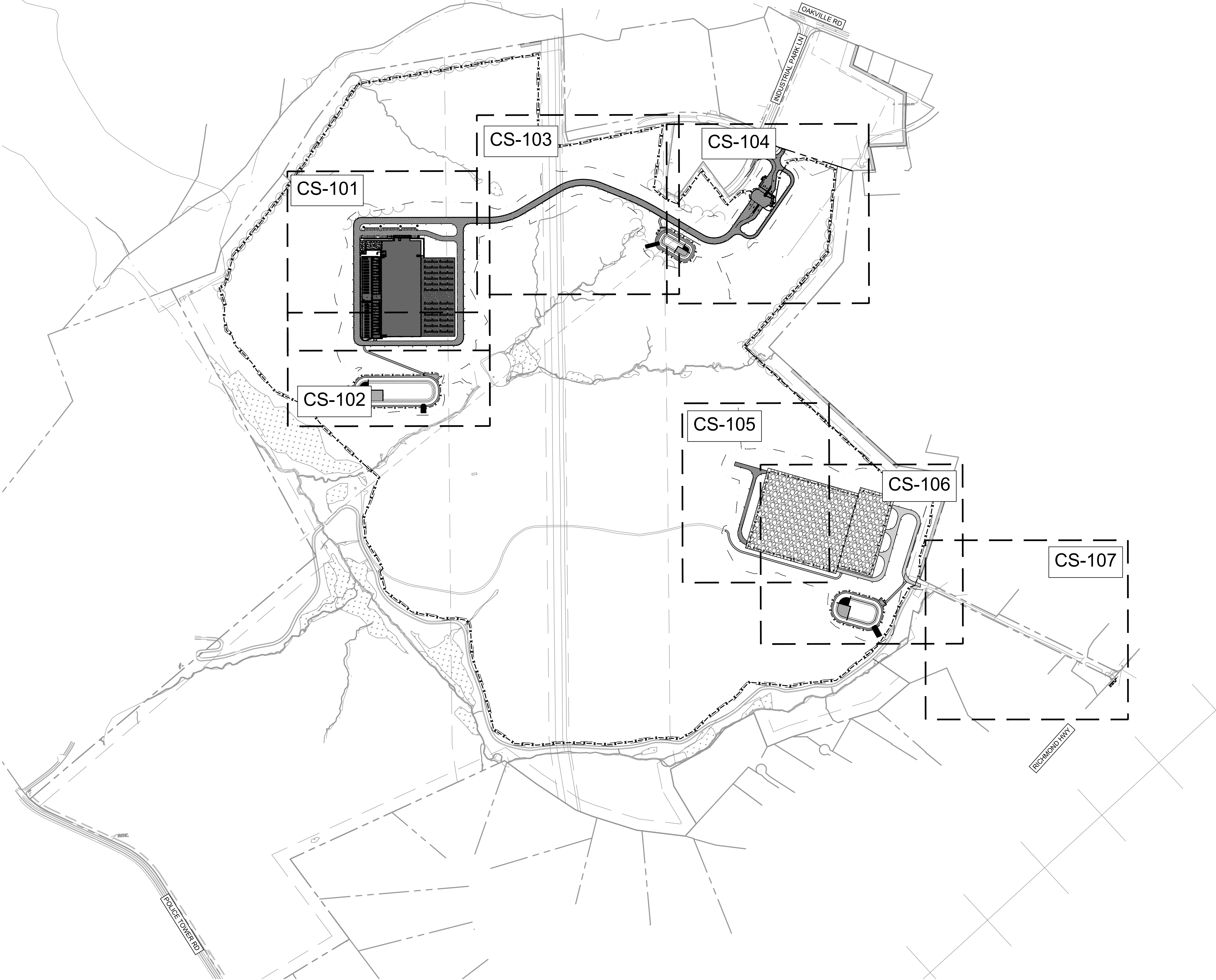


| CULVERT RIPRAP OUTLET PROTECTION SUMMARY |                                        |                      |                     |                                |                                   |                       |                   |                |                                |                                   |                       |               |                                   |                        |                        |
|------------------------------------------|----------------------------------------|----------------------|---------------------|--------------------------------|-----------------------------------|-----------------------|-------------------|----------------|--------------------------------|-----------------------------------|-----------------------|---------------|-----------------------------------|------------------------|------------------------|
|                                          |                                        |                      |                     | APRON (PER BARREL)             |                                   | BARREL                |                   | TOTAL APRON    |                                |                                   |                       | STONE         |                                   |                        |                        |
| OUTFALL NO.                              | OUTLET PIPE DIAMETER (D <sub>o</sub> ) | 10-YR PEAK DISCHARGE | TAILWATER CONDITION | APRON LENGTH (L <sub>a</sub> ) | UPSTREAM WIDTH (3D <sub>o</sub> ) | DOWN-STREAM WIDTH (W) | NUMBER OF BARRELS | BARREL SPACING | APRON LENGTH (L <sub>a</sub> ) | UPSTREAM WIDTH (3D <sub>o</sub> ) | DOWN-STREAM WIDTH (W) | AREA OF APRON | STONE DIAMETER (d <sub>50</sub> ) | THICKNESS OF STONE (T) | APPROX. STONE QUANTITY |
|                                          | IN                                     | CFS                  |                     | FT                             | FT                                | FT                    | EA                | FT             | FT                             | FT                                | FT                    | SF            | FT                                | FT                     | CY                     |
| CU-102                                   | 24                                     | 13.0                 | MIN                 | 11.0                           | 6.0                               | 13.0                  | 1                 |                | 11.0                           | 6.0                               | 13.0                  | 105           | 0.5                               | 1.0                    | 4                      |
| CU-202                                   | 24                                     | 8.6                  | MIN                 | 9.0                            | 6.0                               | 11.0                  | 1                 |                | 9.0                            | 6.0                               | 11.0                  | 77            | 0.5                               | 1.0                    | 3                      |

| DITCH RIPRAP OUTLET PROTECTION SUMMARY |                                    |                |                     |                                |                                   |                       |                                |                                   |                       |               |                                   |                        |                        |
|----------------------------------------|------------------------------------|----------------|---------------------|--------------------------------|-----------------------------------|-----------------------|--------------------------------|-----------------------------------|-----------------------|---------------|-----------------------------------|------------------------|------------------------|
| OUTFALL NO.                            | 10-YR Flow Depth (D <sub>0</sub> ) | 10-YR VELOCITY | TAILWATER CONDITION | APRON                          |                                   |                       | TOTAL APRON                    |                                   |                       | STONE         |                                   |                        |                        |
|                                        |                                    |                |                     | APRON LENGTH (L <sub>a</sub> ) | UPSTREAM WIDTH (3D <sub>0</sub> ) | DOWN-STREAM WIDTH (W) | APRON LENGTH (L <sub>a</sub> ) | UPSTREAM WIDTH (3D <sub>0</sub> ) | DOWN-STREAM WIDTH (W) | AREA OF APRON | STONE DIAMETER (d <sub>50</sub> ) | THICKNESS OF STONE (T) | APPROX. STONE QUANTITY |
|                                        |                                    |                |                     | FT                             | FT                                | FT                    | FT                             | FT                                | FT                    | SF            | FT                                | FT                     | CY                     |
| SCC-06                                 | 14                                 | 10.6           | MIN                 | 23.0                           | 3.5                               | 26.5                  | 23.0                           | 3.5                               | 26.5                  | 344           | 0.2                               | 0.5                    | 6                      |



Plotted By: McCray, Stephen Sheet Set: KHA Layout: CS-100 SITE PLAN November 05, 2025 04:25:38pm  
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#### SITE LEGEND

- ASPHALT PAVEMENT (HEAVY DUTY PAVEMENT)  
SEE APPROVED GEOTECHNICAL REPORT
- CONCRETE SIDEWALK  
SEE DETAIL ON SHEET CS-501
- STANDARD DUTY CONCRETE  
SEE APPROVED GEOTECHNICAL REPORT
- HEAVY DUTY CONCRETE  
SEE APPROVED GEOTECHNICAL REPORT
- VDOT STD. WP-2
- GRAVEL SUBSTATION & EQUIPMENT PAD  
SEE SECTIONS ON SHEET CS-501
- GRAVEL GENERATOR YARD  
SEE SECTION ON SHEET CS-501
- GRAVEL ACCESS ROAD  
SEE SECTION ON SHEET CS-501
- LIMITS OF DISTURBANCE
- 6' CHAINLINK POND SAFETY FENCE

#### SITE NOTES

- ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL LIGHTING TO BE INSTALLED 5' BEHIND CURB AND CENTERED ON PAVEMENT STRIPING UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
- REFER TO SHEETS CS-501 THROUGH CS-502 FOR DETAILS.

#### TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY WORK NOTES

- ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
- VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
- EXCAVATION: NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET, WELD OR ATTACH A BAR ACROSS THE TEETH.
- CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90° AS POSSIBLE.
- NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.

PROJECT HERCULES

OVERALL SITE PLAN

VA

APPOMATTOX COUNTY

SHEET NUMBER

CS-100

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.  
6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230  
PHONE: 804-673-8882  
WWW.KIMLEY-HORN.COM

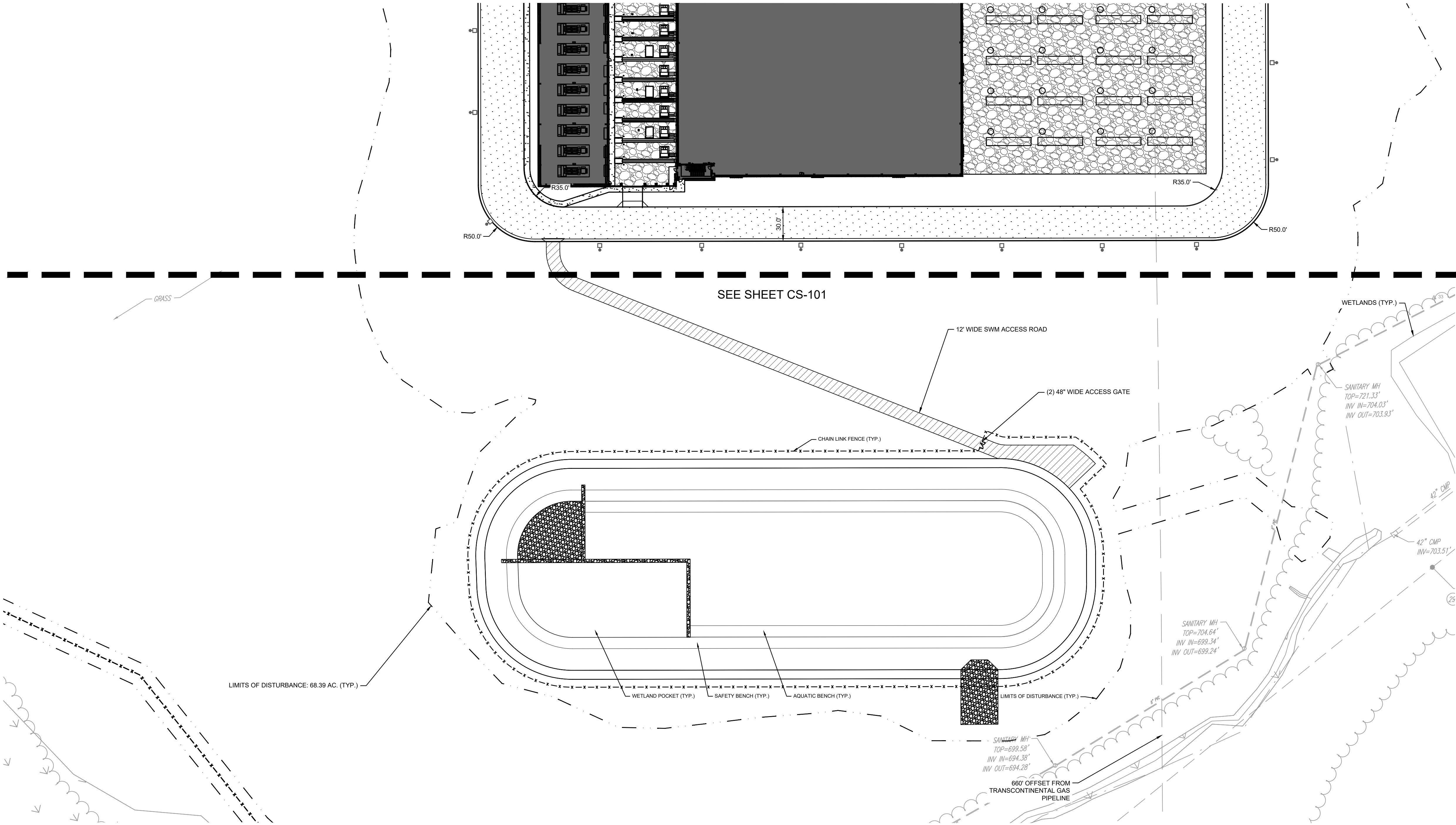
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|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|







Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CS-102 SITE PLAN November 05, 2025 04:26:24pm  
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SEE SECTION ON SHEET CS-501
- GRAVEL ACCESS ROAD  
SEE SECTION ON SHEET CS-501

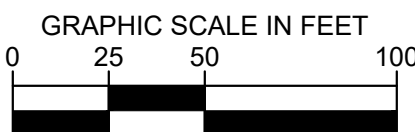
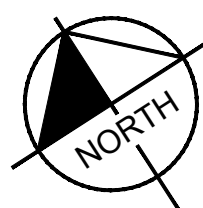
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- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
- REFER TO SHEETS CS-501 THROUGH CS-502 FOR DETAILS.

#### TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY WORK NOTES

- ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
- VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
- EXCAVATION: NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET, WELD OR ATTACH A BAR ACROSS THE TEETH.
- CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90° AS POSSIBLE.
- NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.



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|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

PROJECT HERCULES

APPOMATTOX COUNTY

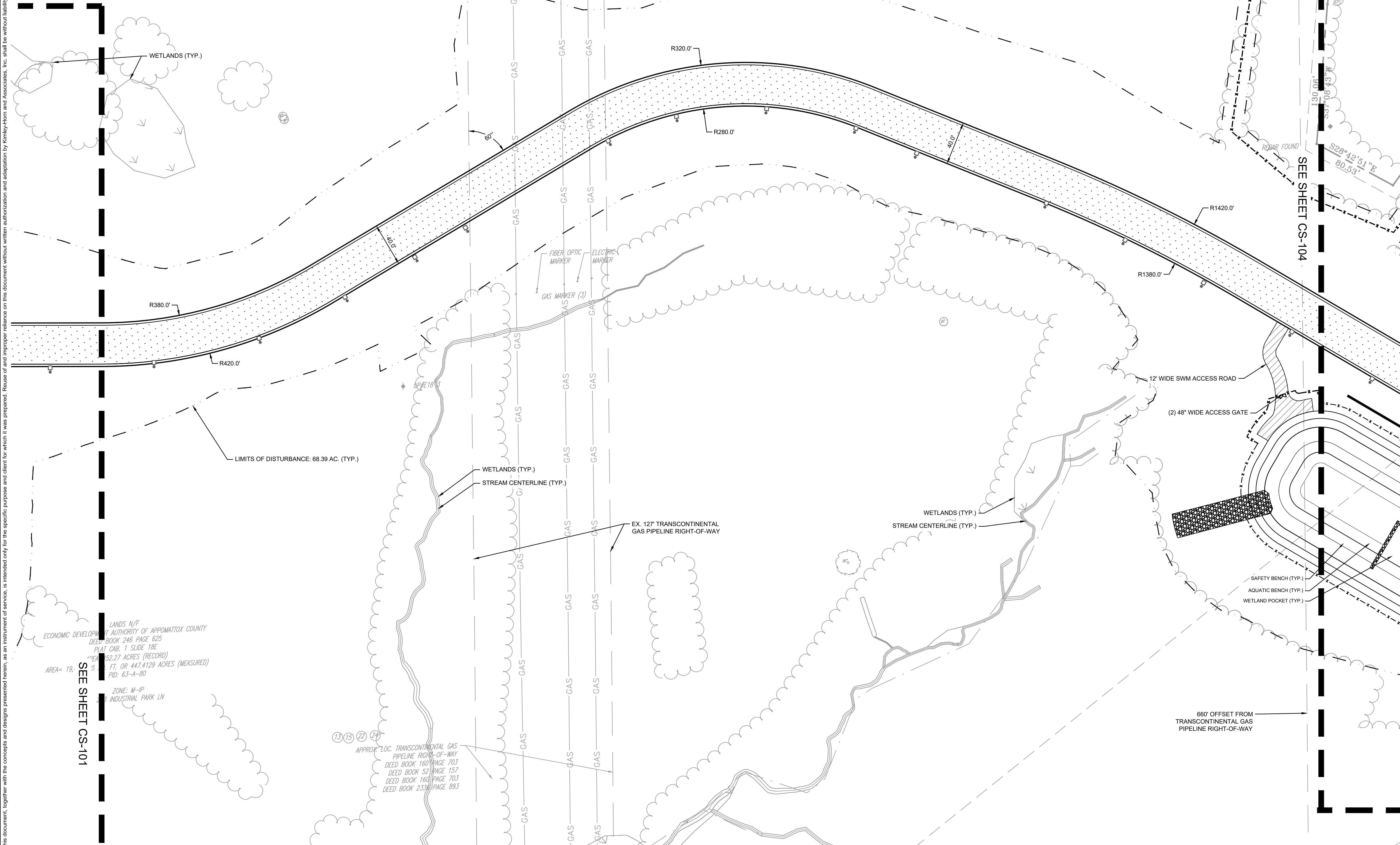
VA

SITE PLAN

SHEET NUMBER

CS-102





## **SITE NOTES**

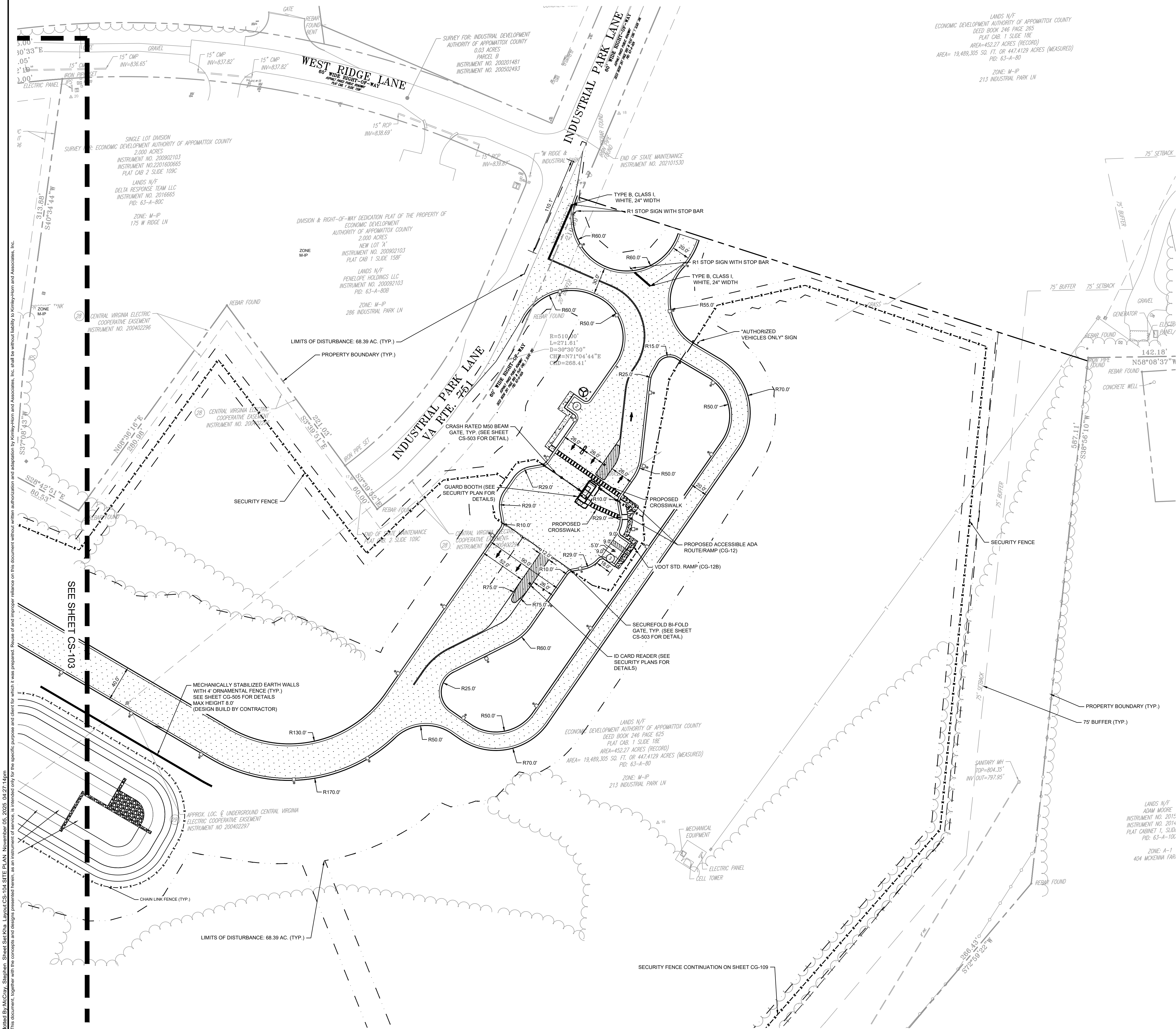
1. ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. ALL LIGHTING TO BE INSTALLED 5' BEHIND CURB AND CENTERED ON PAVEMENT STRIPING UNLESS NOTED OTHERWISE.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGN DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
5. REFER TO SHEETS CS-501 THROUGH CS-502 FOR DETAILS.

1. **ONSITE:** AN AUTHORIZED REPRESENTATIVE WILL BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN A TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED REPRESENTATIVE WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITH THE ROW.
2. **VIBRATORY EQUIPMENT:** VIBRATORY EQUIPMENT IS PROHIBITED WITH THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
3. **EXCAVATION:** NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCK WELD OR ATTACH A BAR ACROSS THE TEETH.
4. **CROSSING ANGLE:** ROADS AND UTILITIES SHALL CROSS AS CLOSE AS POSSIBLE.
5. **NO HORIZONTAL OR VERTICAL BENDS** ARE PERMITTED WITHIN COMPANY ROW.

|                  |                   |    |
|------------------|-------------------|----|
| PROJECT HERCULES | APPOMATTOX COUNTY | VA |
|------------------|-------------------|----|





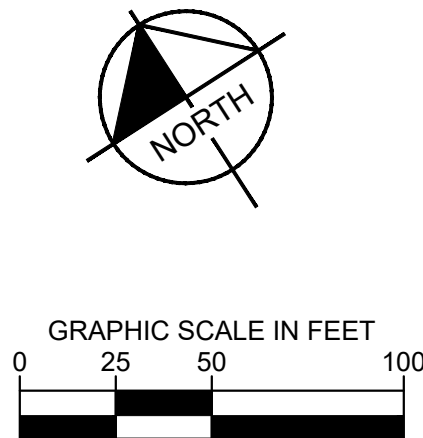


**SITE LEGEND**

- ASPHALT PAVEMENT (HEAVY DUTY PAVEMENT)  
SEE APPROVED GEOTECHNICAL REPORT
- CONCRETE SIDEWALK  
SEE DETAIL ON SHEET CS-501
- STANDARD DUTY CONCRETE  
SEE APPROVED GEOTECHNICAL REPORT
- HEAVY DUTY CONCRETE  
SEE APPROVED GEOTECHNICAL REPORT
- VDOT STD. WP-2
- GRAVEL SUBSTATION & EQUIPMENT PAD  
SEE SECTIONS ON SHEET CS-501
- GRAVEL GENERATOR YARD  
SEE SECTION ON SHEET CS-501
- GRAVEL ACCESS ROAD  
SEE SECTION ON SHEET CS-501
- LIMITS OF DISTURBANCE
- 6' CHAINLINK POND SAFETY FENCE

- SITE NOTES**
- ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
  - ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - ALL LIGHTING TO BE INSTALLED 5' BEHIND CURB AND CENTERED ON PAVEMENT STRIPING UNLESS NOTED OTHERWISE.
  - THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
  - REFER TO SHEETS CS-501 THROUGH CS-502 FOR DETAILS.

- TRANSCONTINENTAL GAS PIPELINE  
RIGHT-OF-WAY WORK NOTES**
- ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
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|             |            |          |             |          |            |
|-------------|------------|----------|-------------|----------|------------|
| KHA PROJECT | DATE       | SCALE    | DESIGNED BY | DRAWN BY | CHECKED BY |
| 113706001   | 11/14/2025 | AS SHOWN | STM         | STM      | JMM        |

SITE PLAN

PROJECT HERCULES

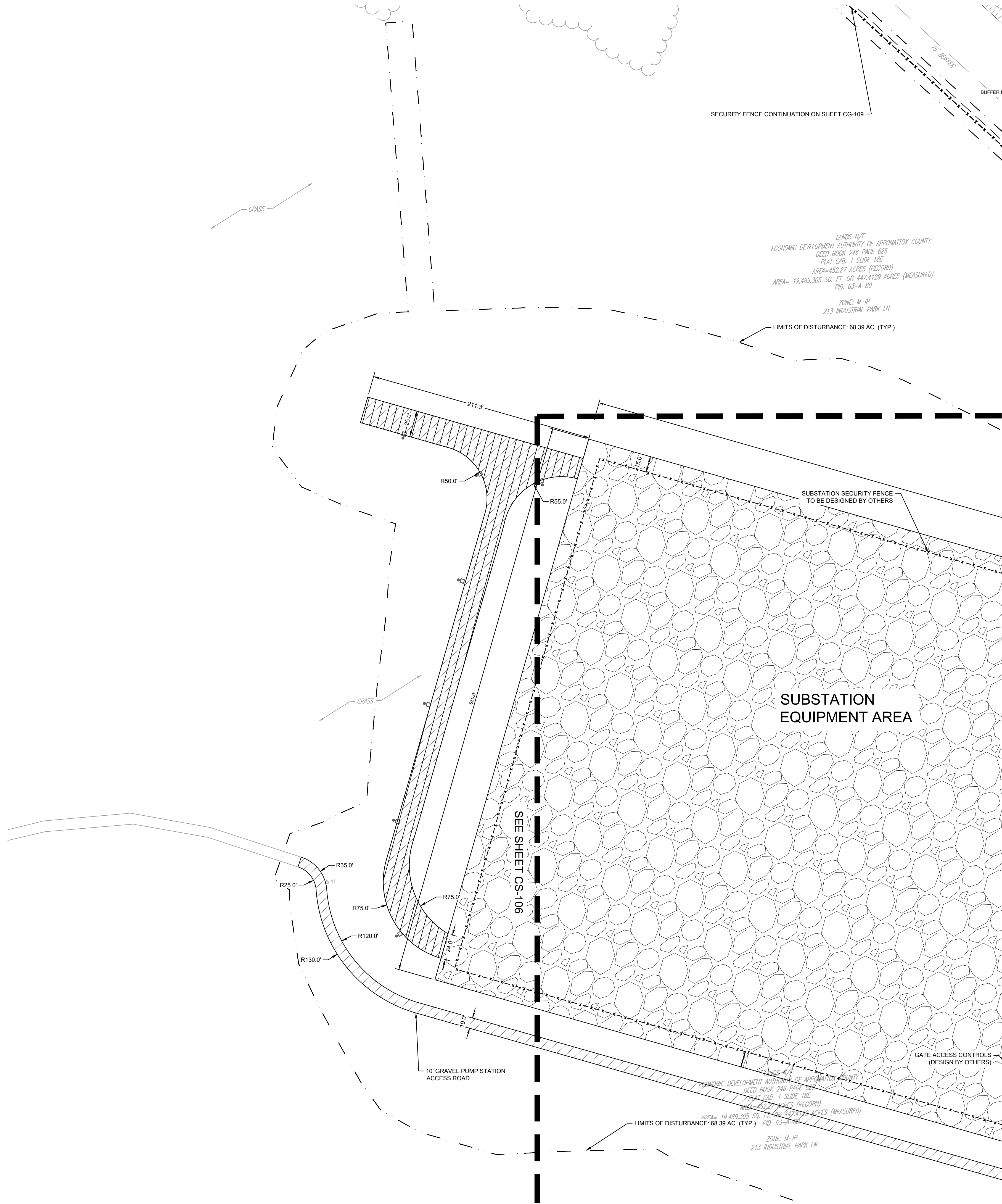
SHEET NUMBER  
CS-104

VA

APPOMATTOX COUNTY



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CS-105 SITE PLAN November 05, 2025 04:27:34pm  
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SITE LEGEND

- ASPHALT PAVEMENT (HEAVY DUTY PAVEMENT) SEE APPROVED GEOTECHNICAL REPORT
- CONCRETE SIDEWALK SEE DETAIL ON SHEET CS-501
- STANDARD DUTY CONCRETE SEE APPROVED GEOTECHNICAL REPORT
- HEAVY DUTY CONCRETE SEE APPROVED GEOTECHNICAL REPORT
- VDOT STD. WP-2
- GRAVEL SUBSTATION & EQUIPMENT PAD SEE SECTIONS ON SHEET CS-501
- GRAVEL GENERATOR YARD SEE SECTION ON SHEET CS-501
- GRAVEL ACCESS ROAD SEE SECTION ON SHEET CS-501

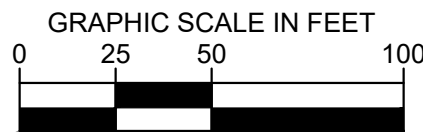
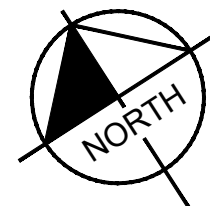
- LIMITS OF DISTURBANCE
- 6' CHAINLINK POND SAFETY FENCE

SITE NOTES

- ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
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TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY WORK NOTES

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|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

PROJECT HERCULES

SITE PLAN

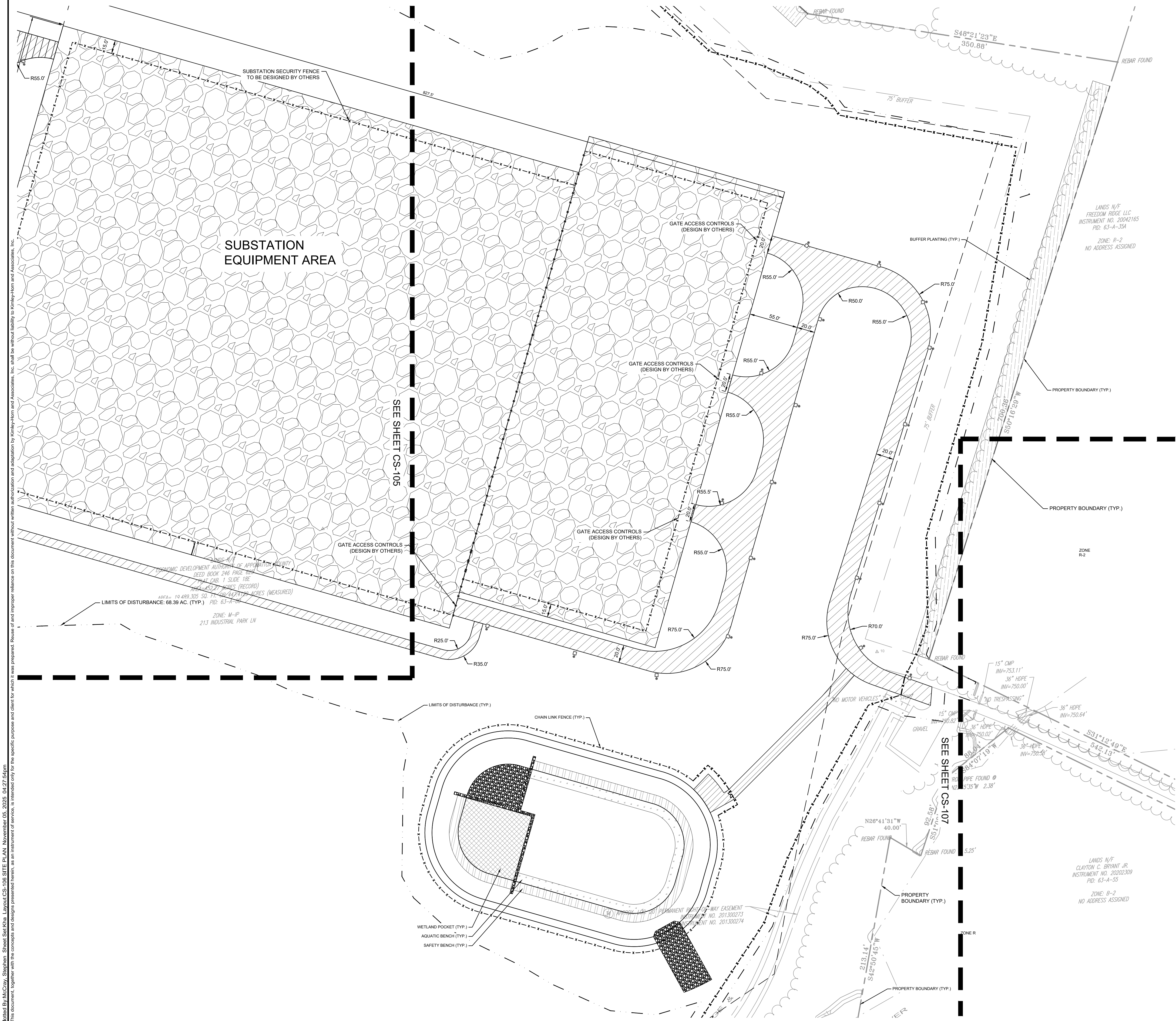
SHEET NUMBER

CS-105

APPOMATTOX COUNTY

VA





SITE LEGEND

- ASPHALT PAVEMENT (HEAVY DUTY PAVEMENT)  
SEE APPROVED GEOTECHNICAL REPORT
- CONCRETE SIDEWALK  
SEE DETAIL ON SHEET CS-501
- STANDARD DUTY CONCRETE  
SEE APPROVED GEOTECHNICAL REPORT
- HEAVY DUTY CONCRETE  
SEE APPROVED GEOTECHNICAL REPORT
- VDOT STD. WP-2
- GRAVEL SUBSTATION & EQUIPMENT PAD  
SEE SECTIONS ON SHEET CS-501
- GRAVEL GENERATOR YARD  
SEE SECTION ON SHEET CS-501
- GRAVEL ACCESS ROAD  
SEE SECTION ON SHEET CS-501

- LIMITS OF DISTURBANCE
- 6' CHAINLINK POND SAFETY FENCE

SITE NOTES

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TRANSCONTINENTAL GAS PIPELINE  
RIGHT-OF-WAY WORK NOTES

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# Jacobs

## Kimley»Horn

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COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

|                          |                    |                   |                    |                 |                   |
|--------------------------|--------------------|-------------------|--------------------|-----------------|-------------------|
| KHA PROJECT<br>113706001 | DATE<br>11/14/2025 | SCALE<br>AS SHOWN | DESIGNED BY<br>STM | DRAWN BY<br>STM | CHECKED BY<br>JMM |
|--------------------------|--------------------|-------------------|--------------------|-----------------|-------------------|

### PROJECT HERCULES

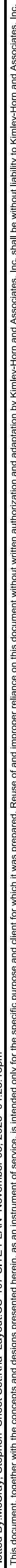
### SITE PLAN

SHEET NUMBER  
CS-106

VA  
APPOMATTOX COUNTY

Plotted By: McGraw, Stephen Sheet Set: KHA Layout: CS-106 SITE PLAN November 05, 2025 04:27:54pm  
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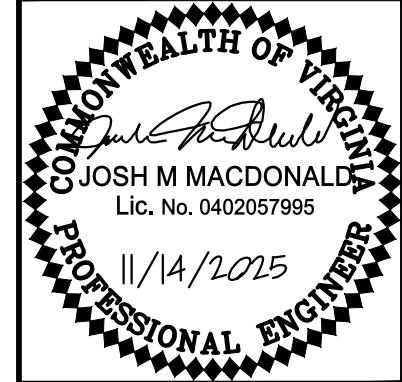


## **SITE NOTES**

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2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
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4. **CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE AS POSSIBLE.**
5. **NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.**

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|                          |                    |             |          |
|--------------------------|--------------------|-------------|----------|
| KHA PROJECT<br>113706001 | DATE<br>11/14/2025 | SCALE       | AS SHOWN |
|                          |                    | DESIGNED BY | STM      |
|                          |                    | DRAWN BY    | STM      |
|                          |                    | CHECKED BY  | JMM      |

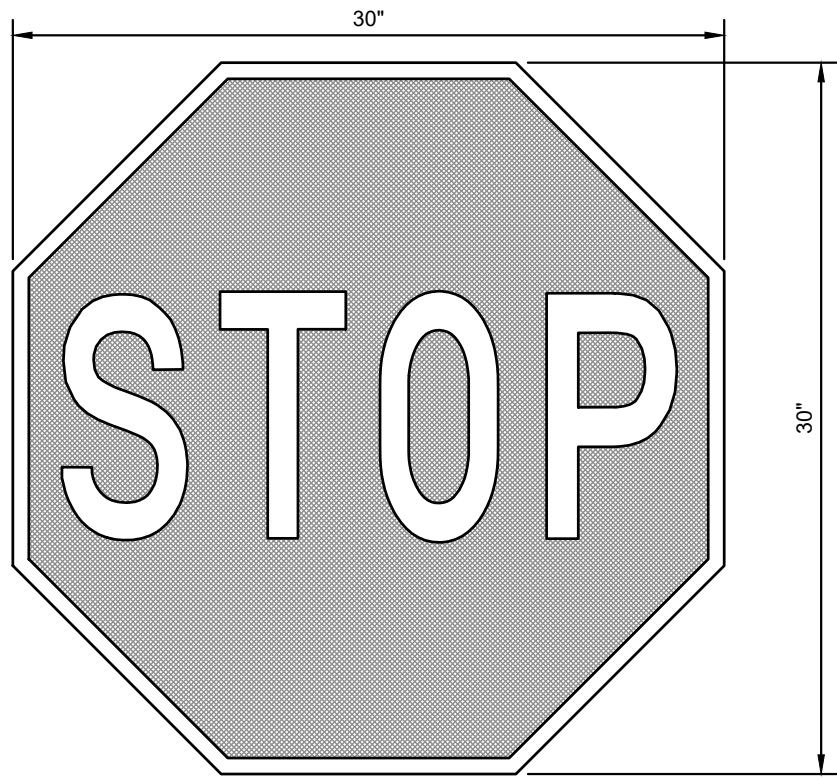
# SITE PLAN

# PROJECT HERCULES

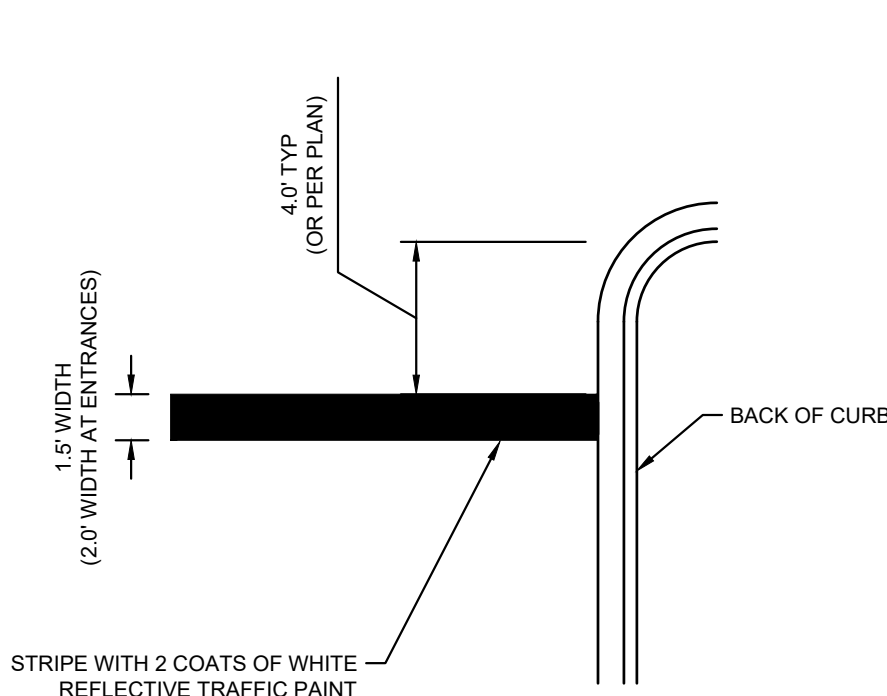
SHEET NUMBER  
**CS-107**



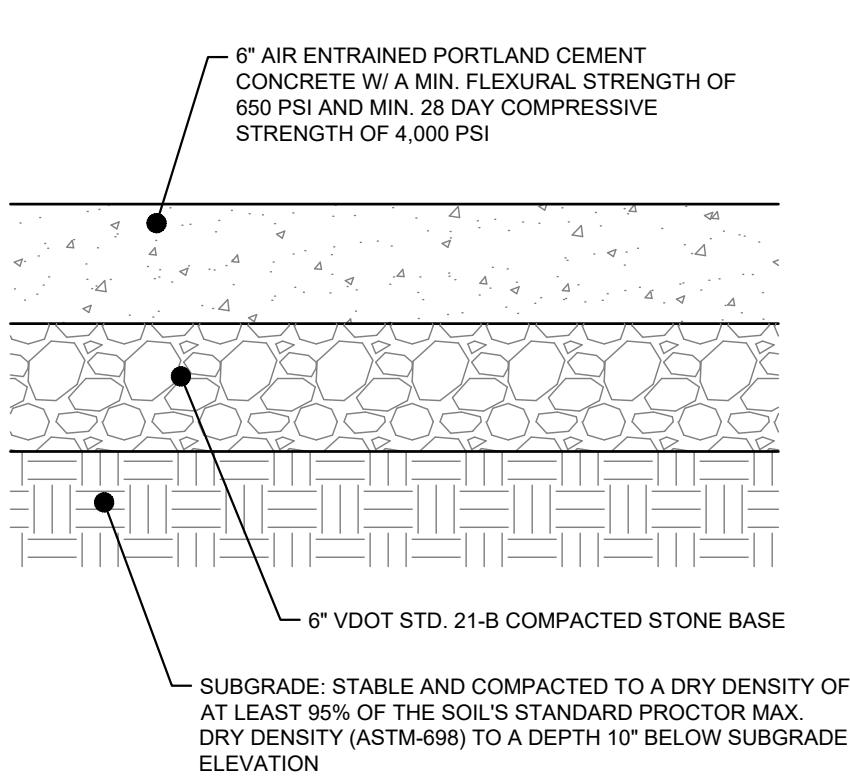
Plotted By:McGray, Stephen Sheet Set:Kha Layout:CS-501 SITE DETAILS November 05, 2025 04:28:24pm  
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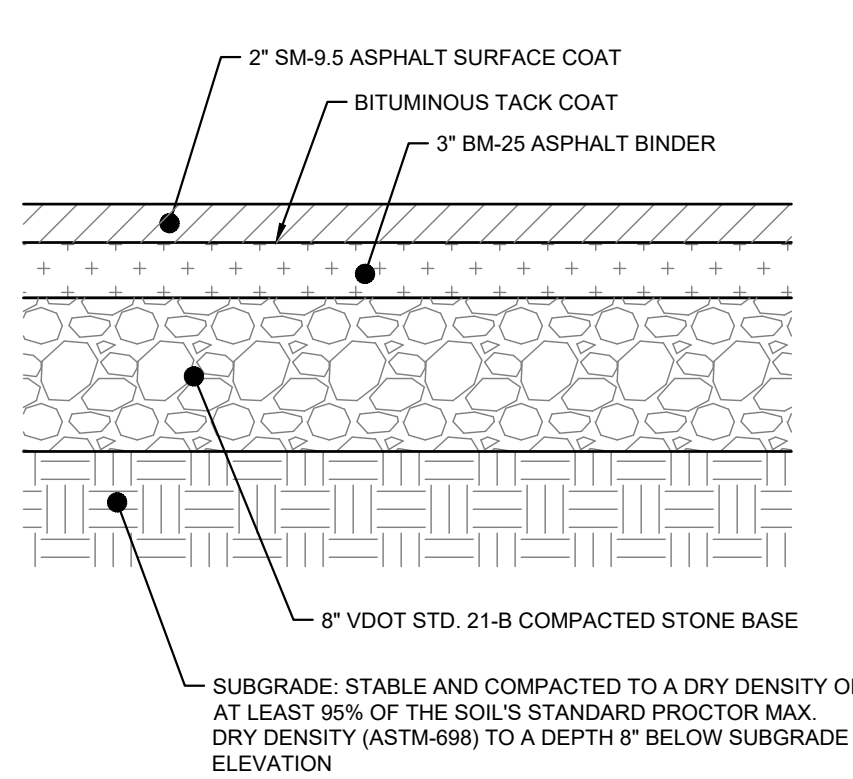
STOP SIGN (R1-1)



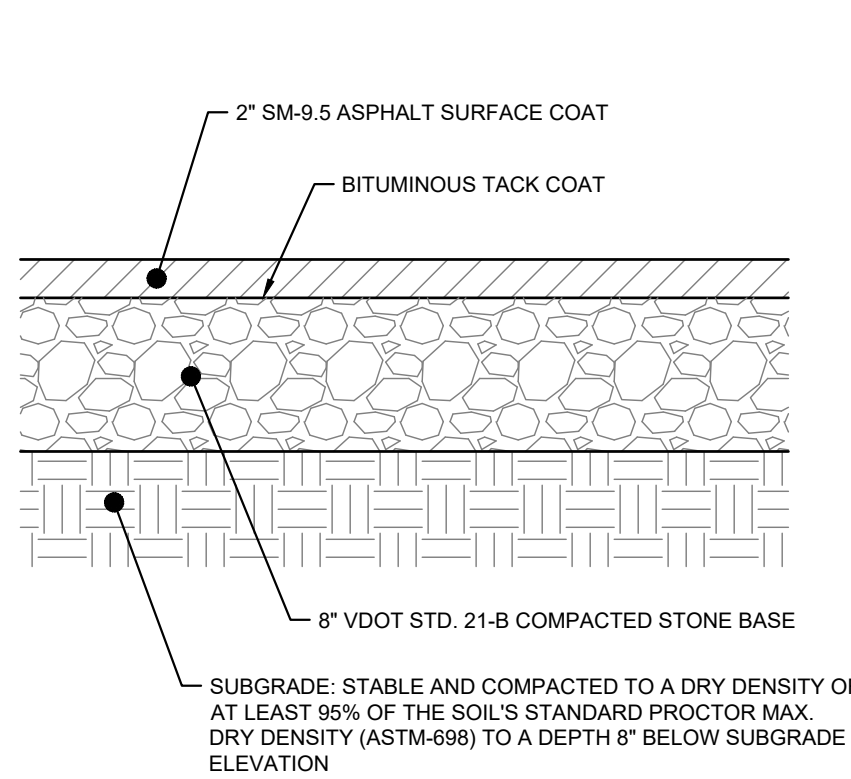
STOP BAR STRIPING



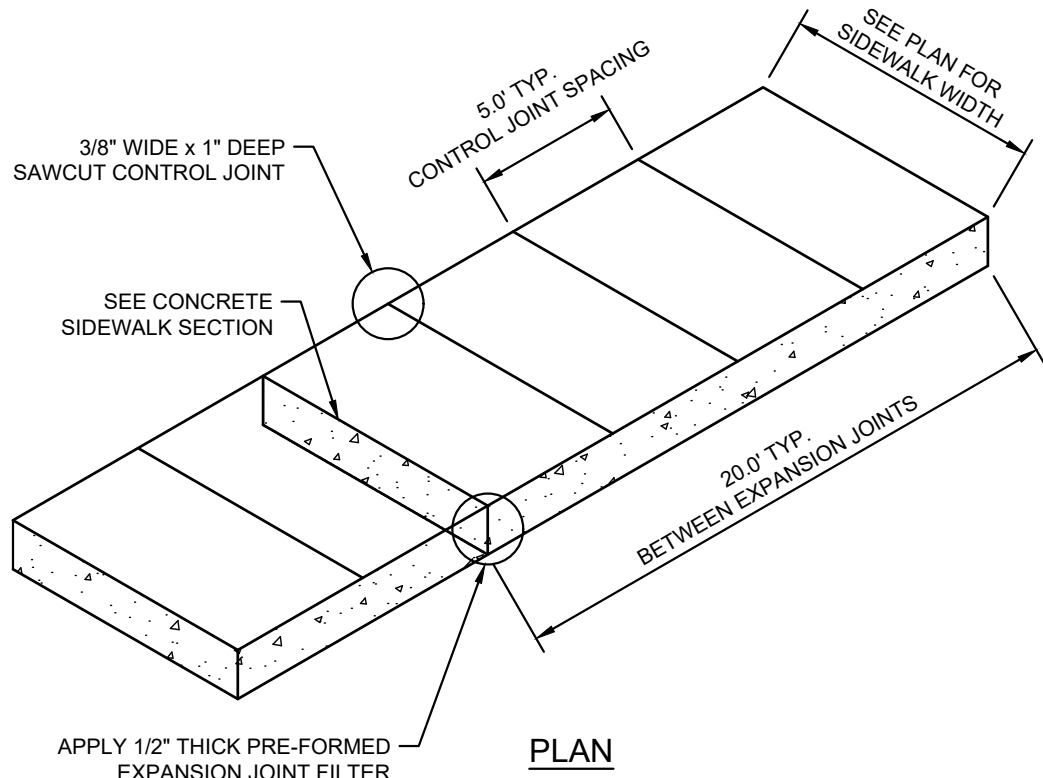
HEAVY DUTY CONCRETE



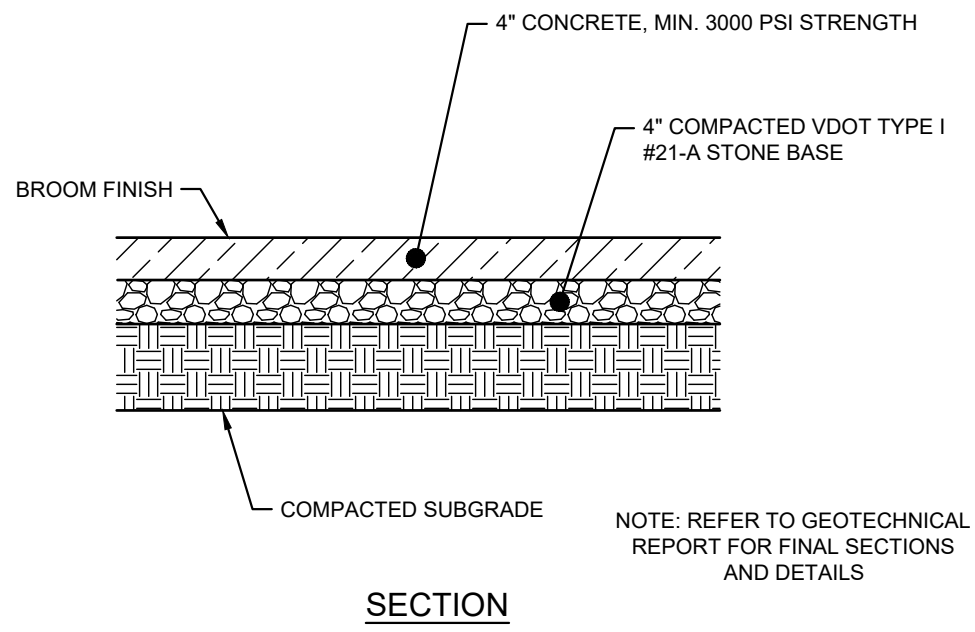
HEAVY DUTY PAVEMENT



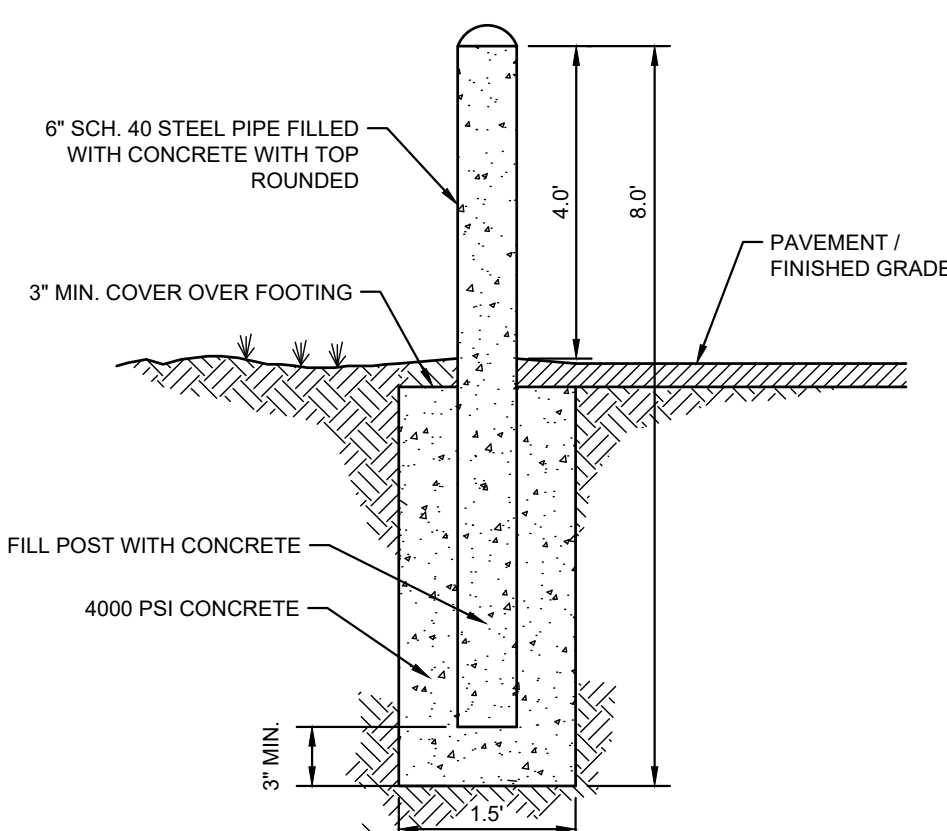
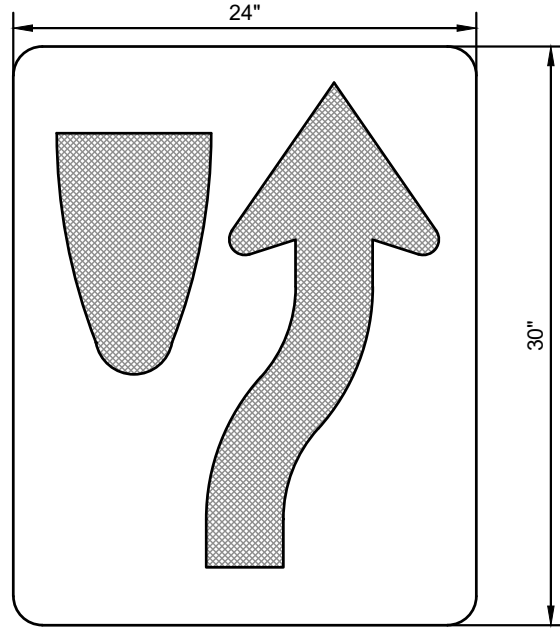
LIGHT DUTY PAVEMENT



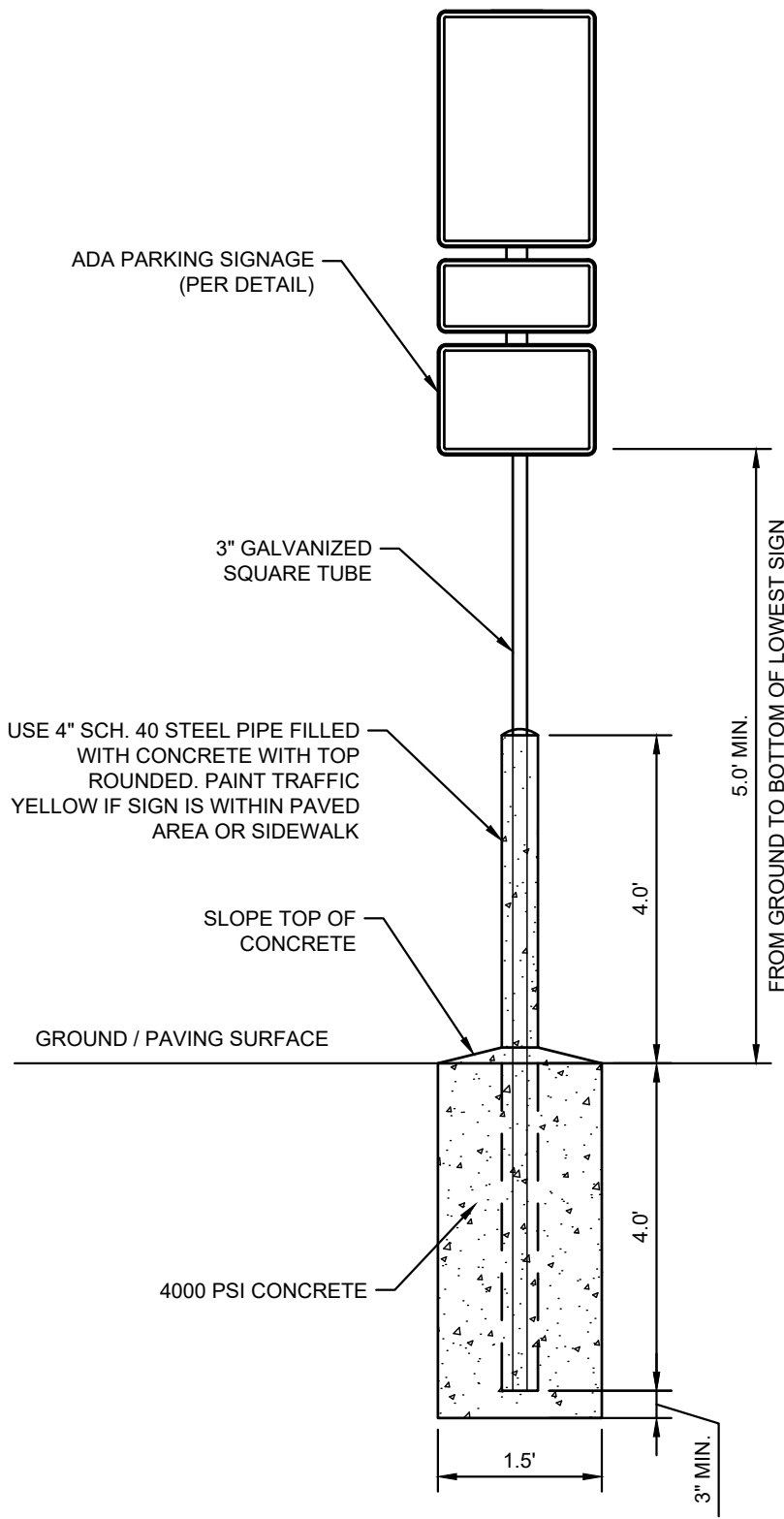
CONCRETE SIDEWALK



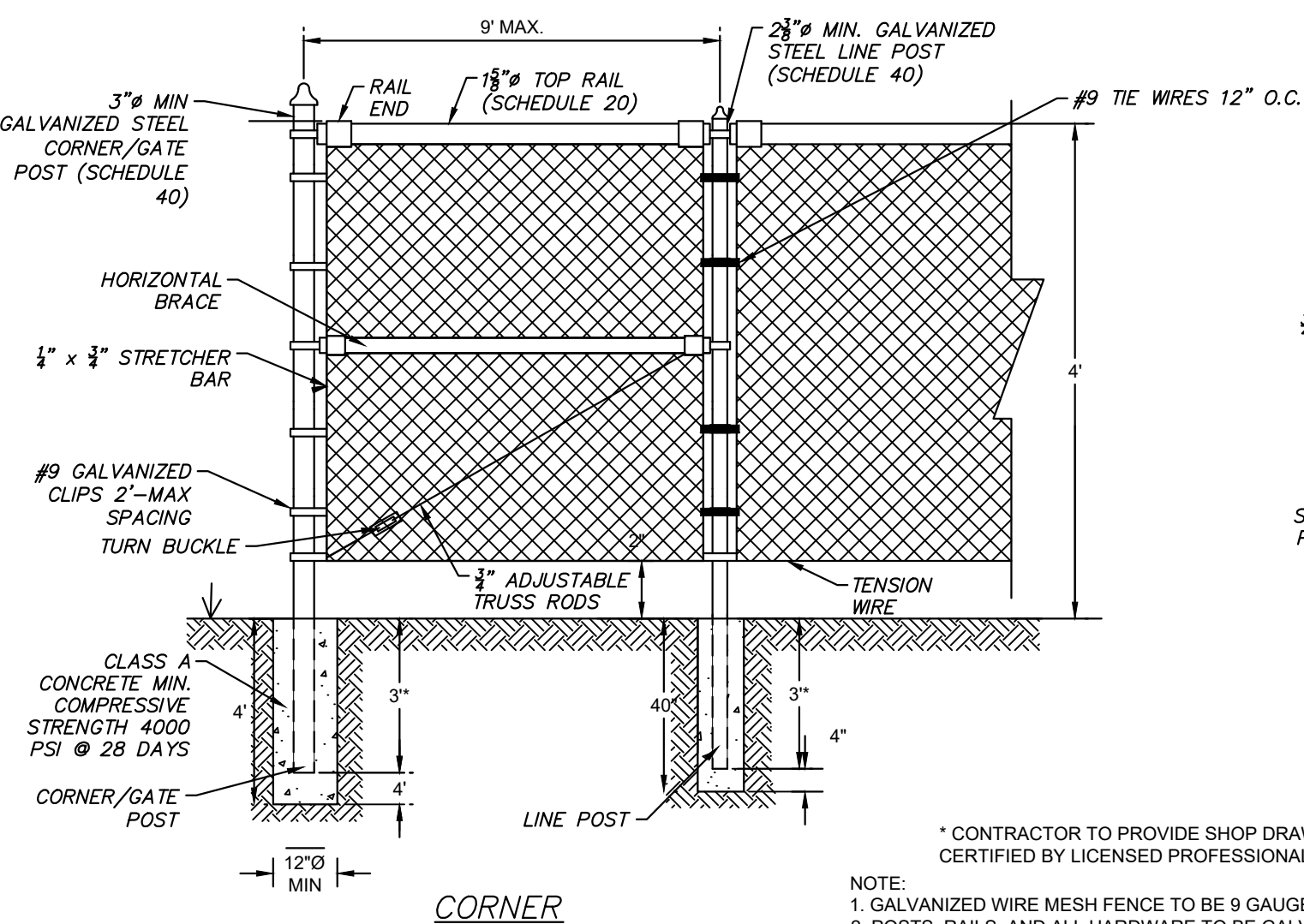
KEEP RIGHT (R4-7)



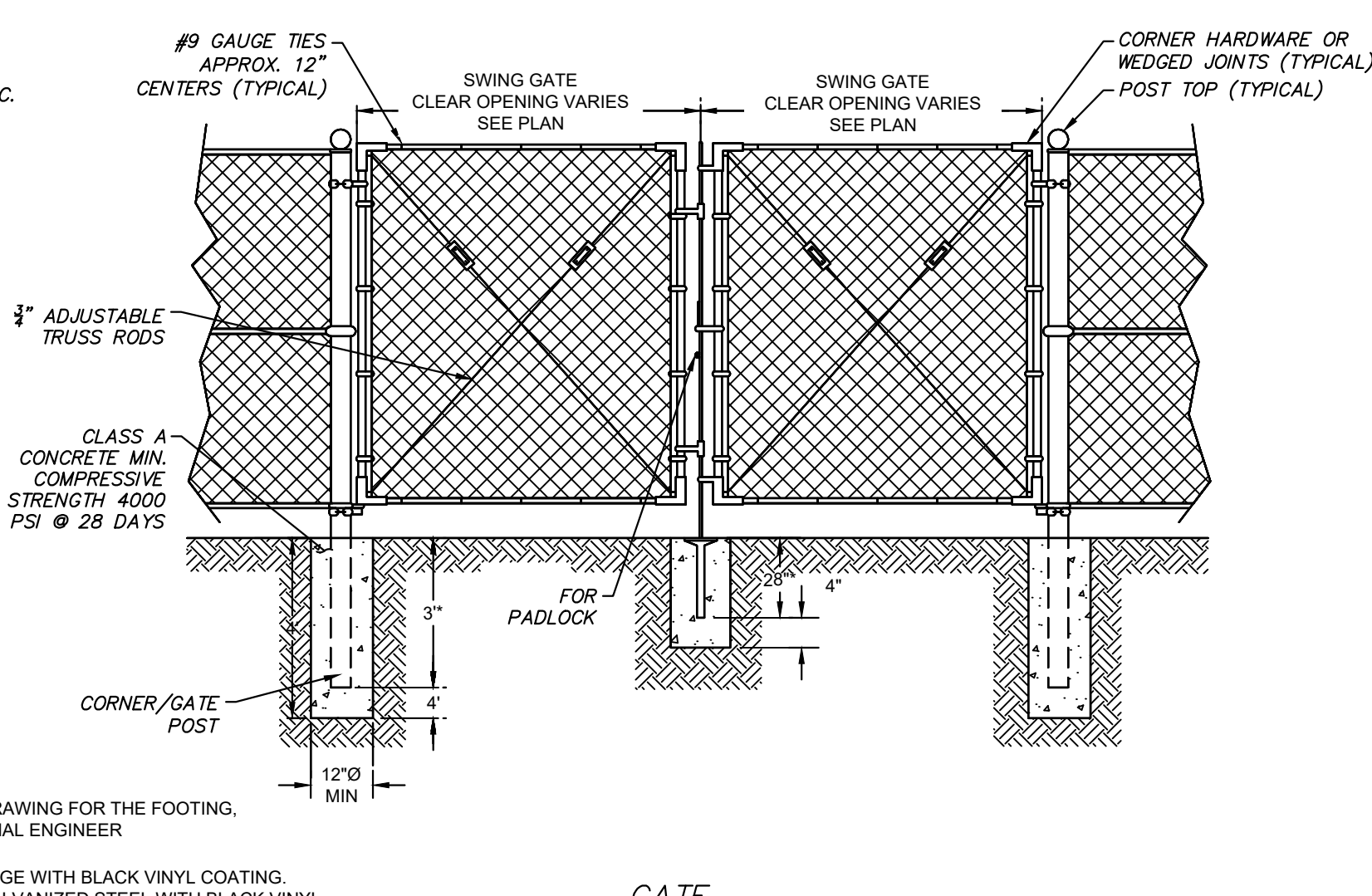
SITE BOLLARD



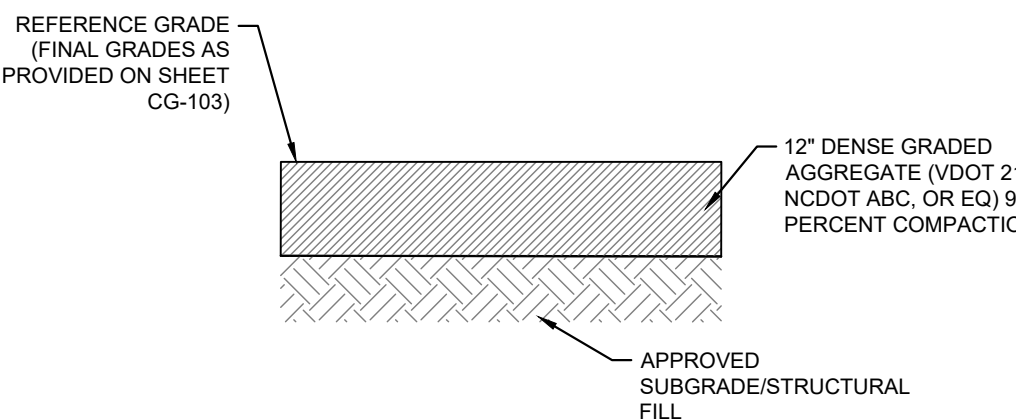
ADA PARKING SIGN POST



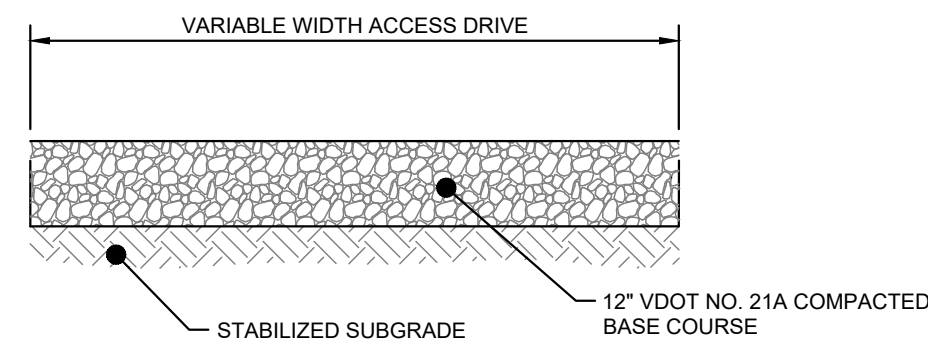
CHAIN LINK FENCE DETAIL (AROUND WET PONDS)



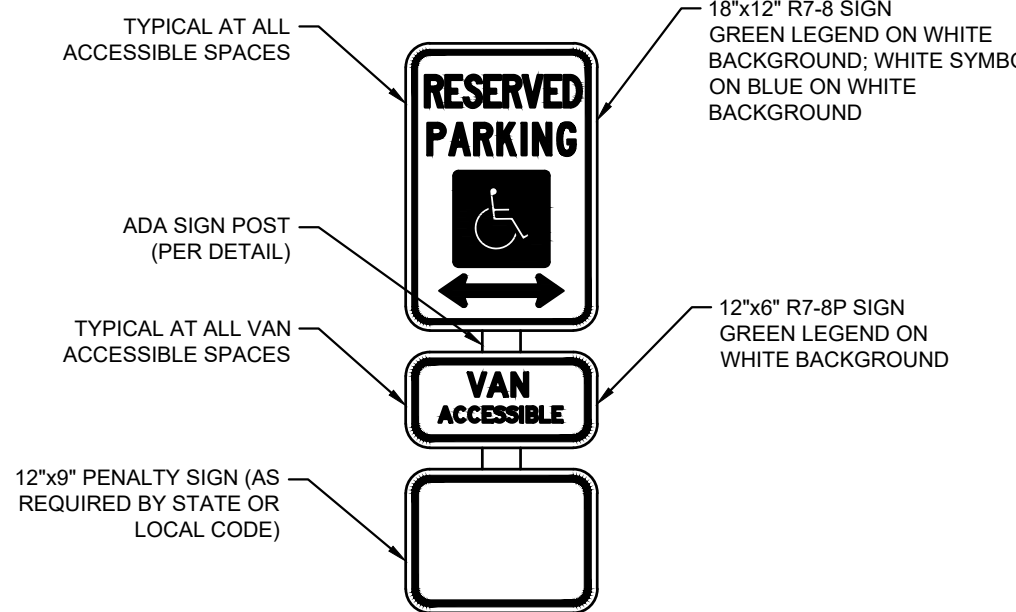
GATE



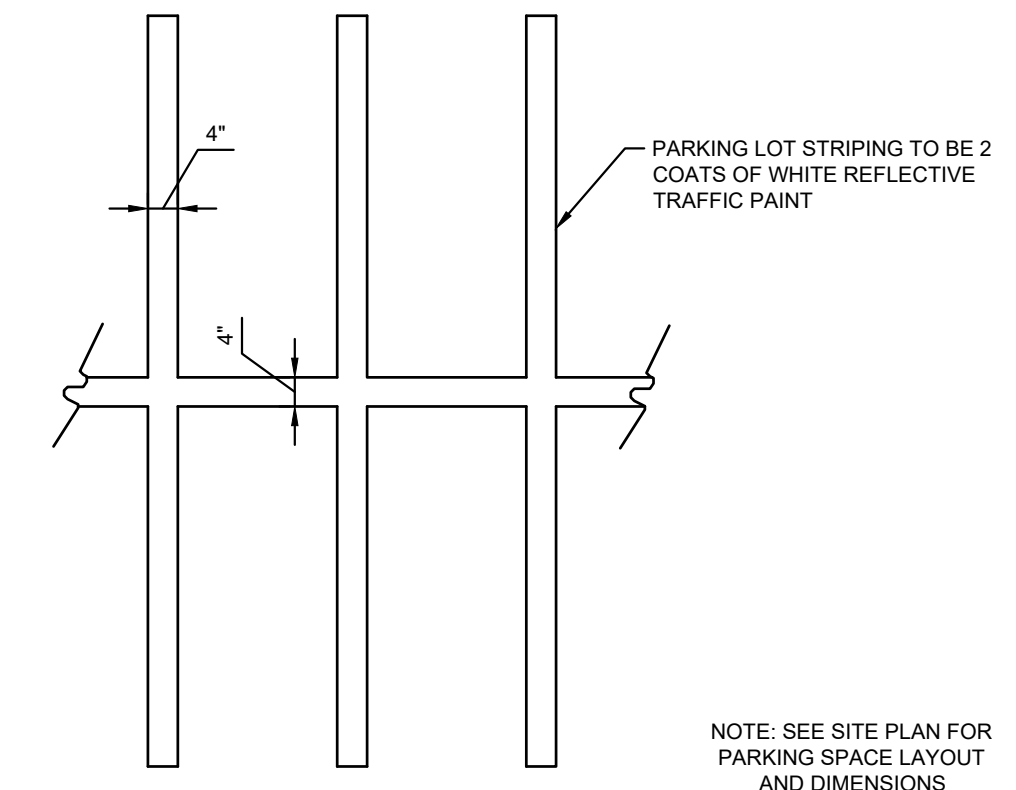
SUBSTATION PAD CROSS SECTION PROVIDED BY DEVELOPER



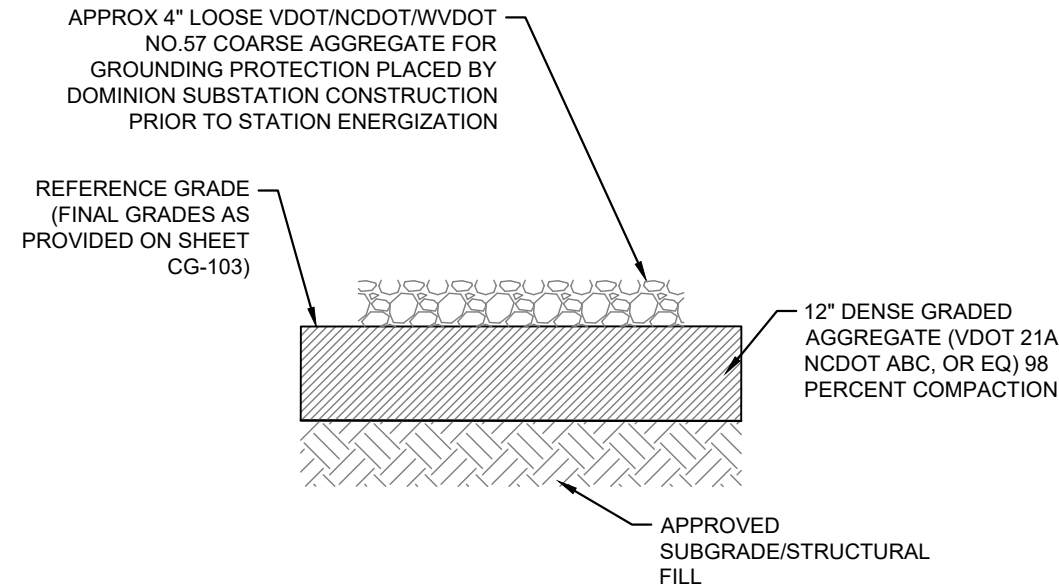
GRAVEL ACCESS ROAD



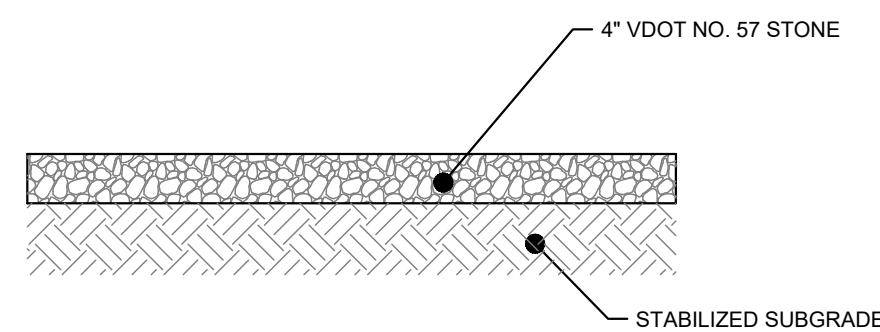
ADA PARKING SIGNAGE



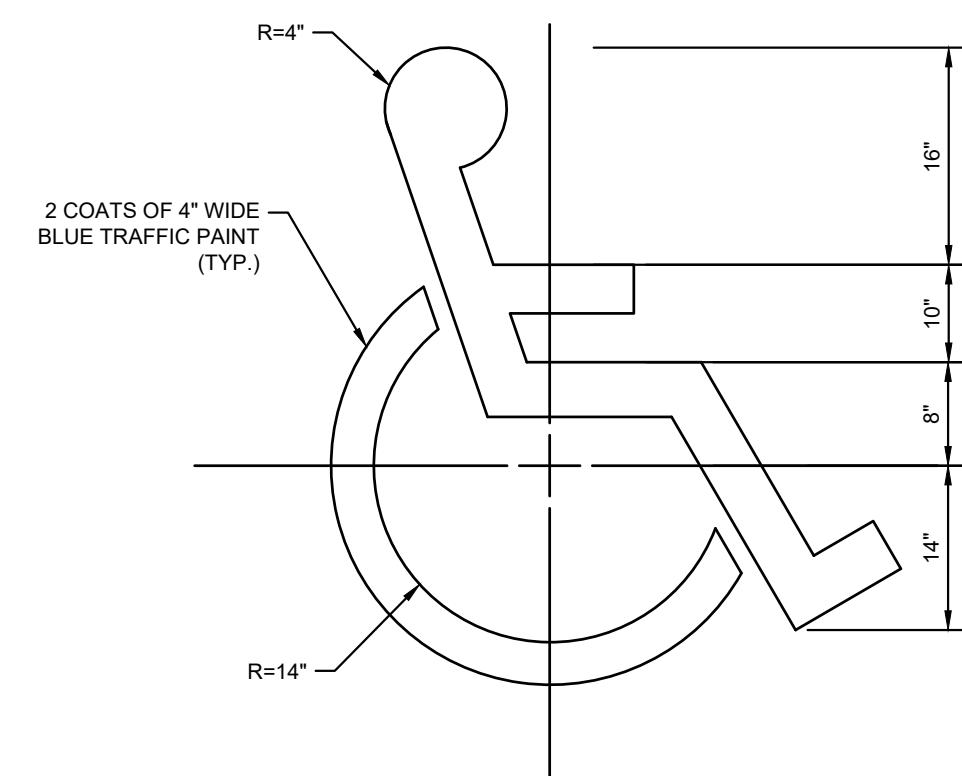
PARKING LOT STRIPING



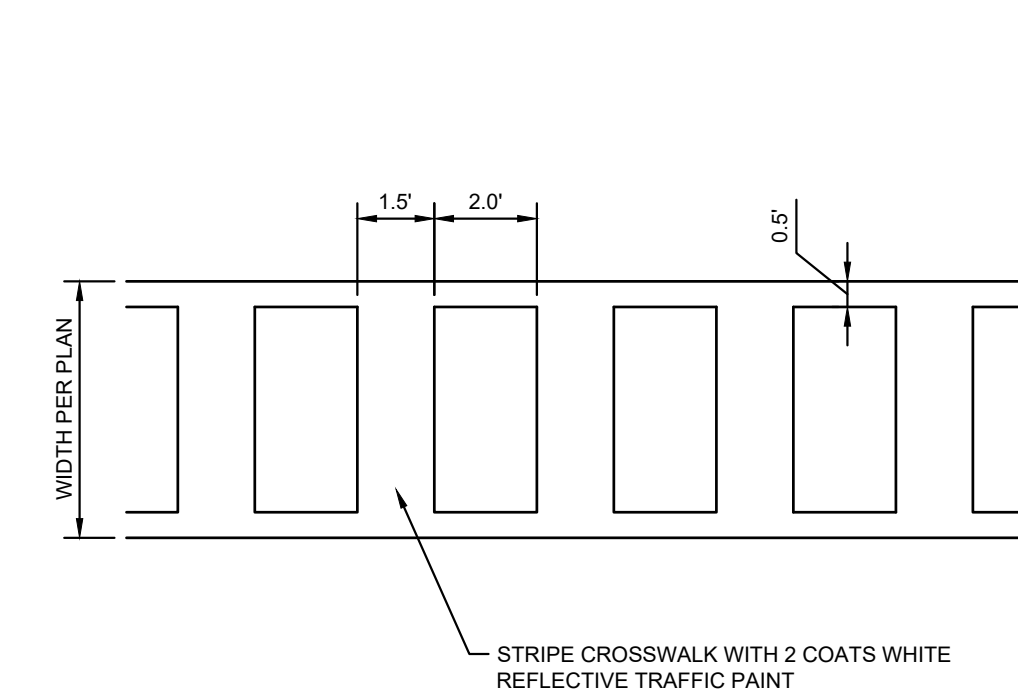
SUBSTATION PAD CROSS SECTION FINAL



GRAVEL GENERATOR YARD



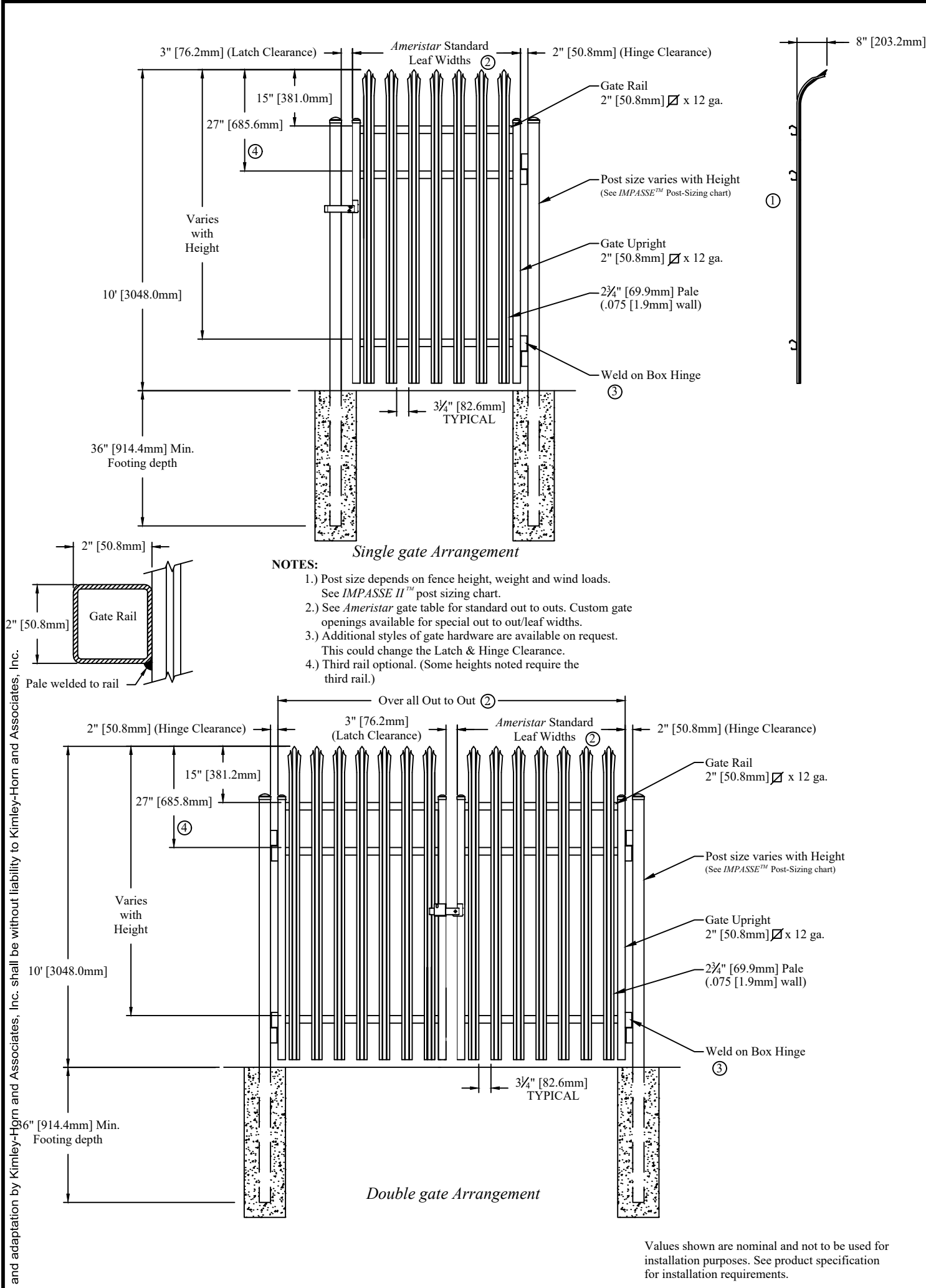
ADA PARKING SYMBOL



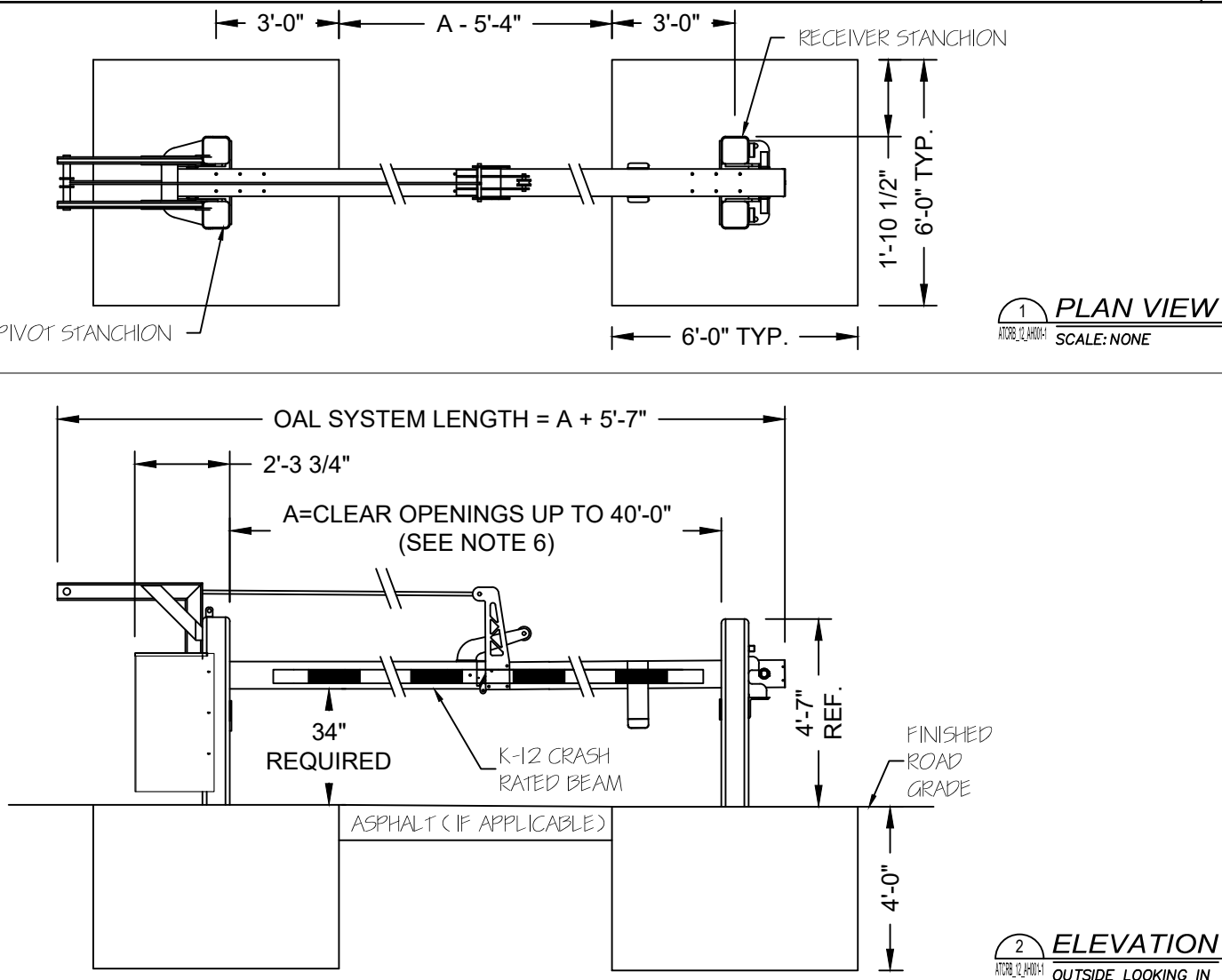
CROSSWALK STRIPING



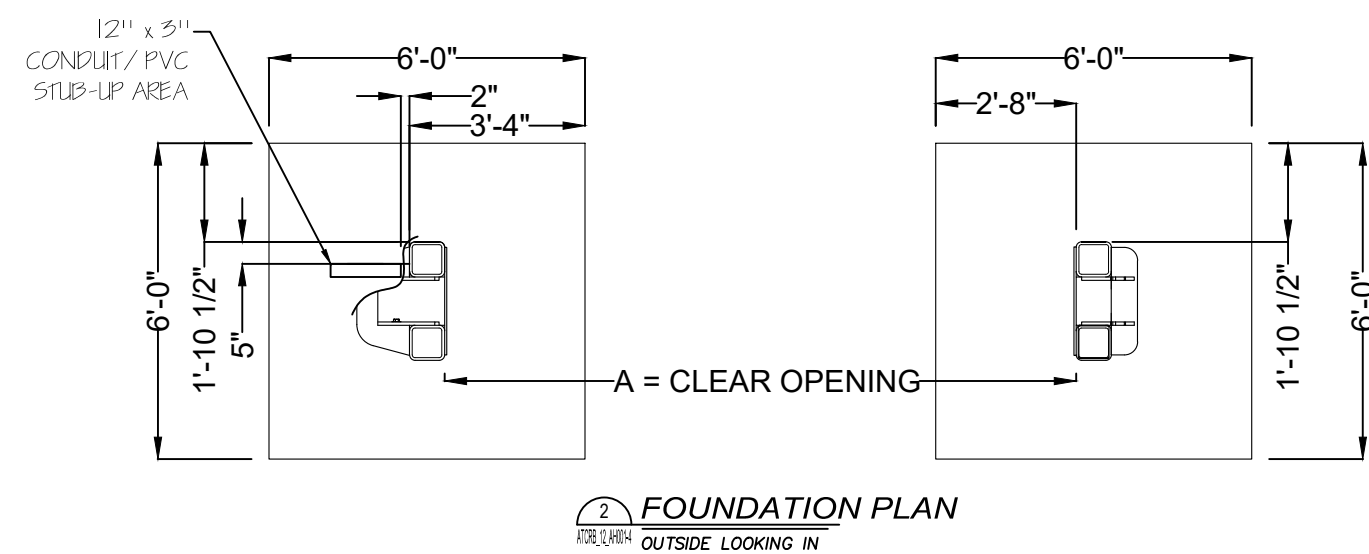
Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CS-502 SITE DETAILS November 05, 2025 04:29:38pm  
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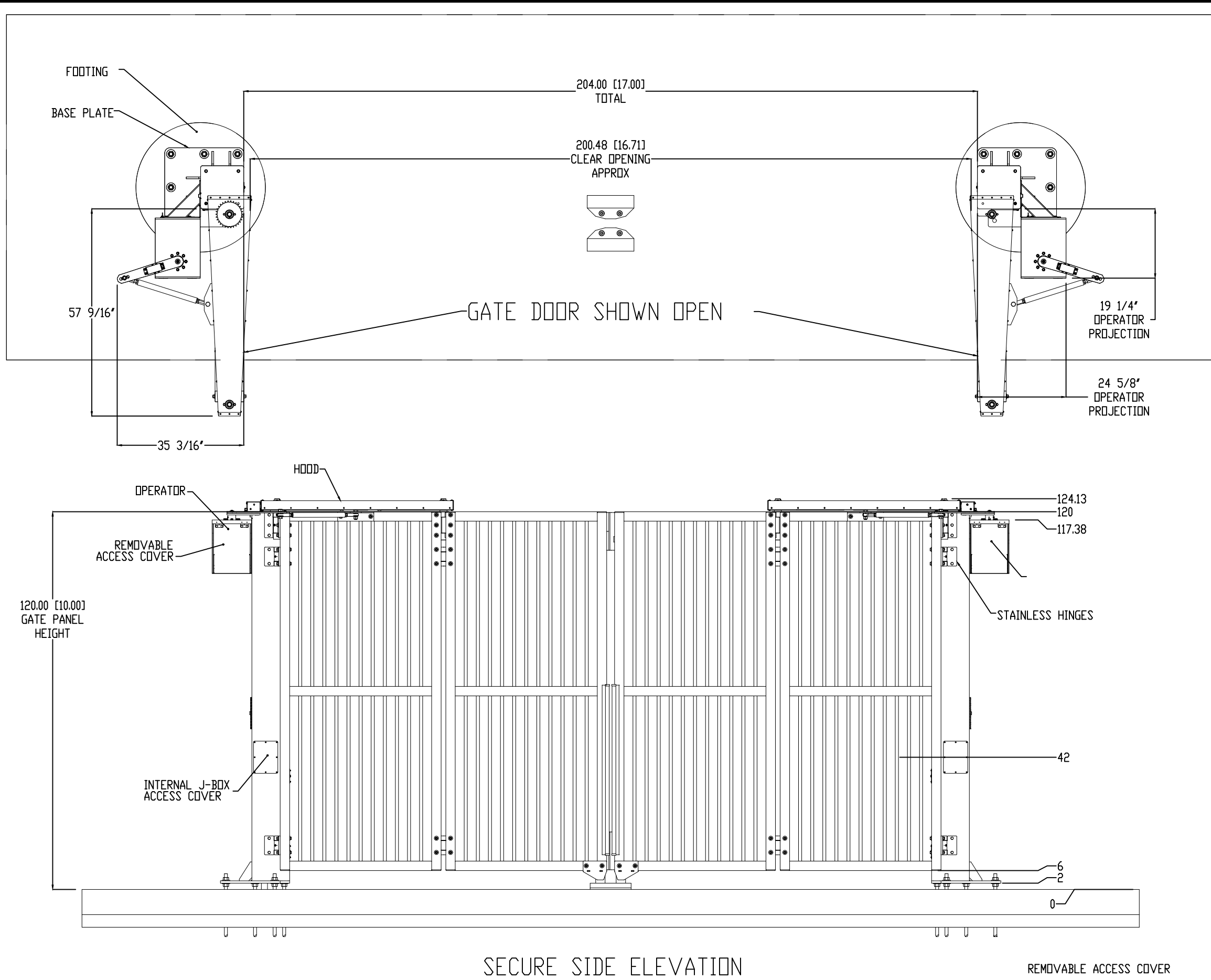
## HIGH SECURITY STEEL PEDESTRIAN GATE DETAIL



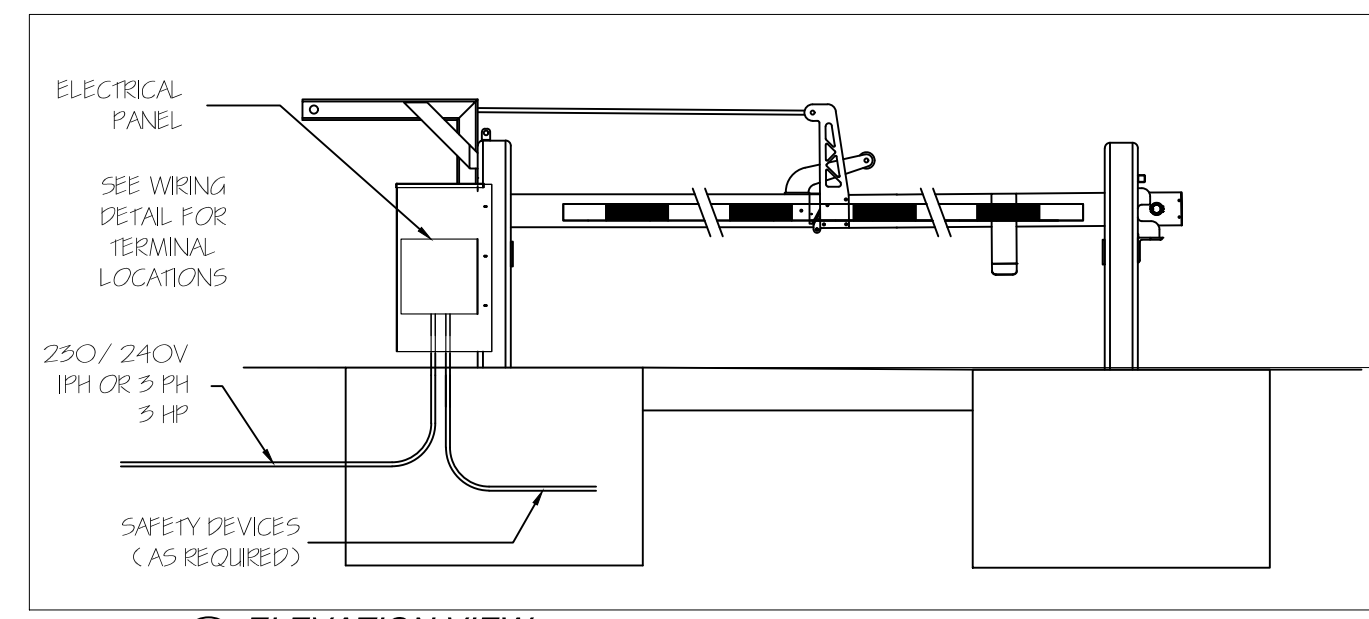
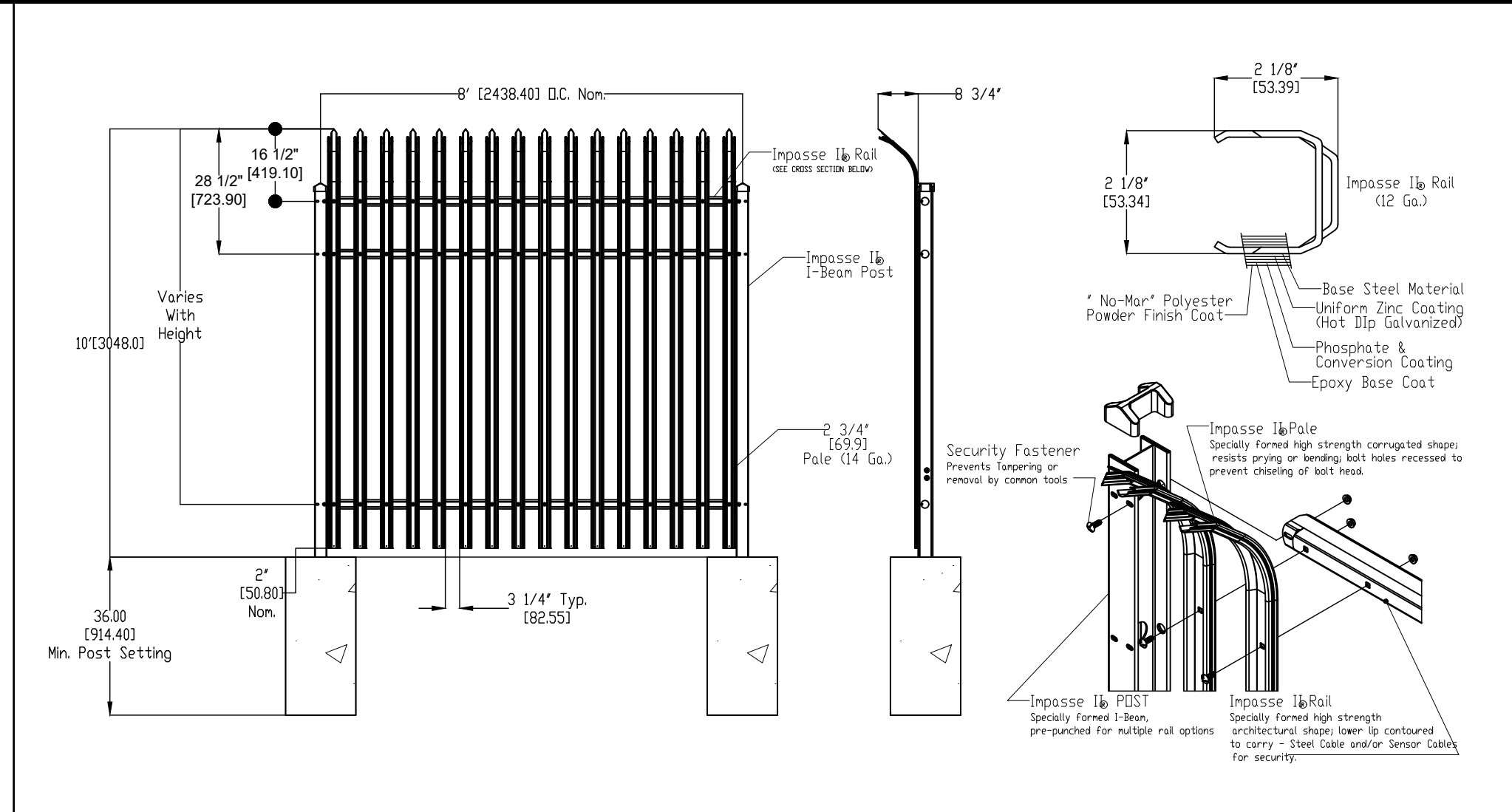
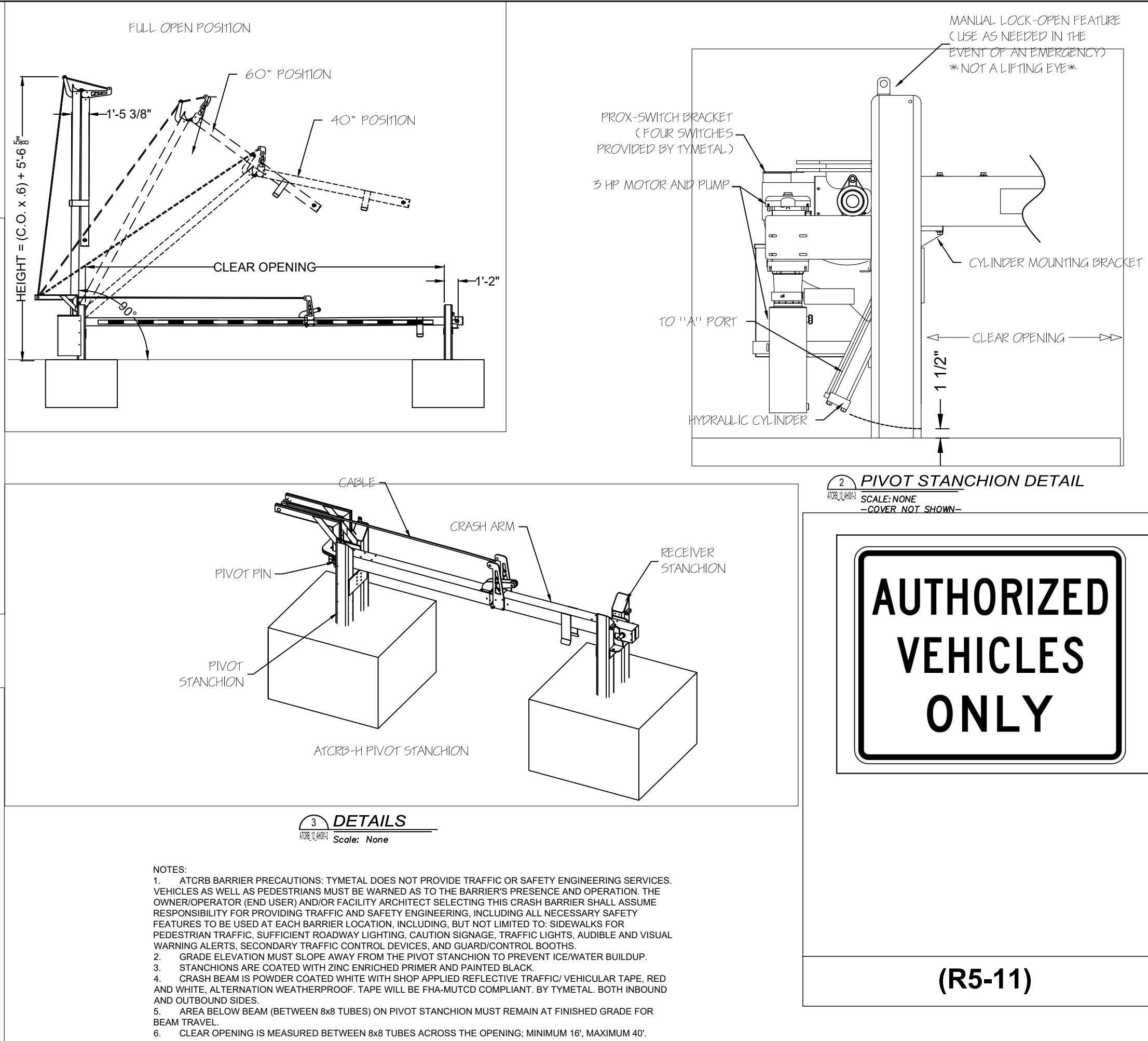
## CRASH RATED ASTM F2656 M50-P2



## M-50 CRASH RATED BEAM ARM DETAIL

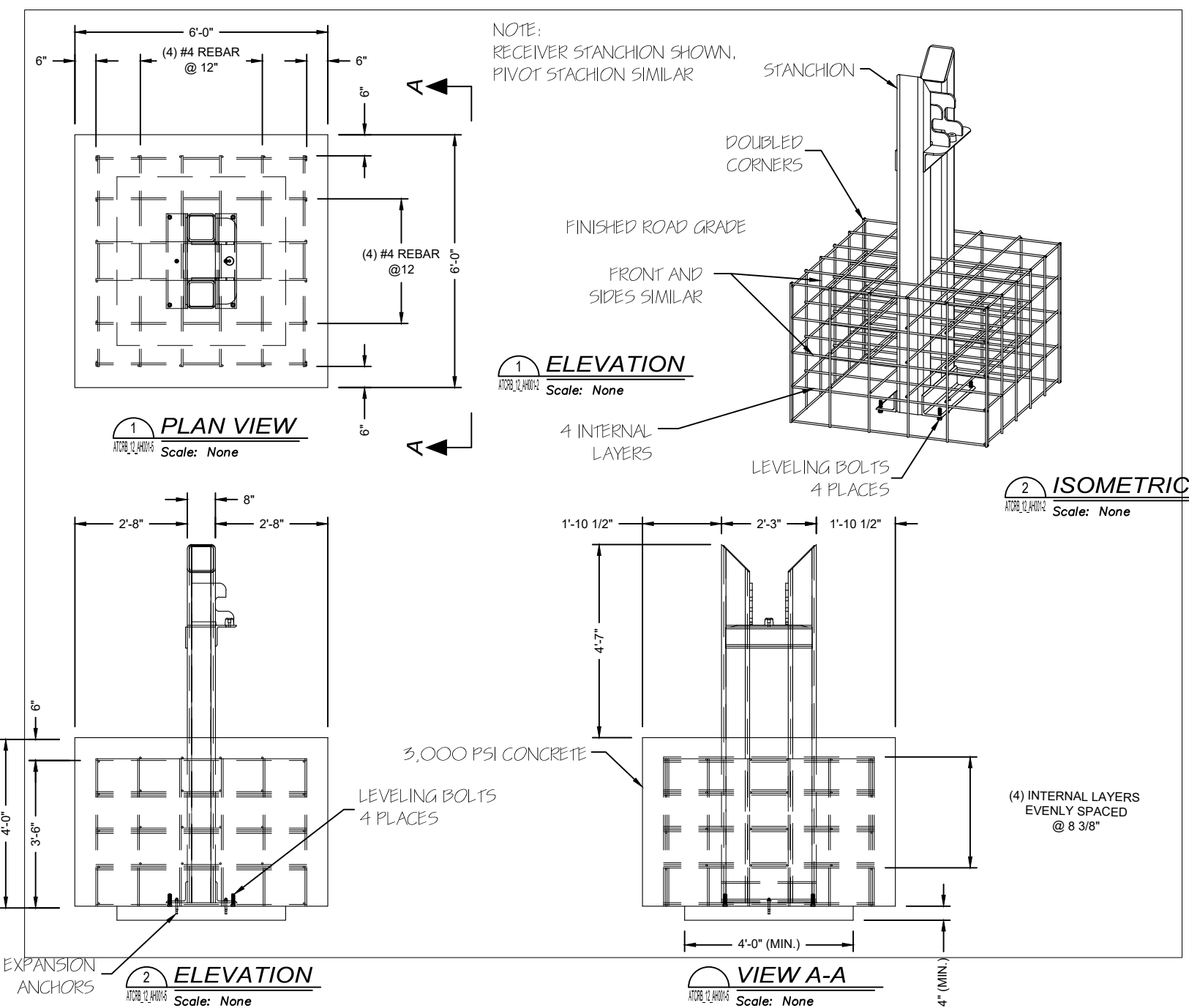


## SECURFOLD TRACKLESS BIFOLD SPEED GATE



- NOTES:
1. ALL SAFETY DEVICES, BY OTHERS, AS APPLICABLE, TERMINATE IN EACH BARRIER CONTROLLER.
  2. WIRE COUNTS ARE BASED ON HAVING SINGLE BFO BUTTON AND RESET TO ACTIVATE BARRIER.
  3. SYSTEMS MAY OPERATE FROM ONE OR MORE CONTROL INTERFACES AS REQUIRED.
  4. BARRIER ARM CONTROLLER LOCATED WITHIN THE ELECTRICAL PANEL (BY TYPMETAL).
  5. CONDUITS SHOWN ARE TYPICAL MINIMUMS. SEE LOCAL CODE FOR REQUIREMENTS.

| CONDUIT | START LOCATION                 | END LOCATION           | NO. OF WIRES | VOLTAGE/PHASE   |
|---------|--------------------------------|------------------------|--------------|-----------------|
| A       | CONTROL INTERFACE              | BARRIER ARM CONTROLLER | 6 MIN.       | 24VDC           |
| B       | ELECTRICAL PANEL (GUARD HOUSE) | BARRIER ARM CONTROLLER | 2            | 208-230/240 3ph |
| C       | ELECTRICAL PANEL (IN UNIT)     | SAFETY DEVICES         | TBD          |                 |



- NOTES:
1. TYPMETAL RECOMMENDS ALL SITE CONDITIONS BE REVIEWED BY A QUALIFIED ENGINEER. MINIMUM SITU SOIL BEARING CAPACITY OF 940 PSF AND BACKFILL COMPACTION TO A DENSITY OF NOT LESS THAN 95% MAXIMUM DRY DENSITY ARE REQUIRED. TYPMETAL WILL NOT BE RESPONSIBLE FOR FAILED GATE OPERATIONS CAUSED BY UNSTABLE SOIL CONDITIONS.
  2. FOUNDATIONS SHOWN ARE BASED ON AVERAGE SOIL AND SITE CONDITIONS. FOUNDATIONS MUST BE IN ACCORDANCE WITH ALL LOCAL CODES, AND SHOULD BE REVIEWED BY A LOCAL ENGINEER.

# Jacobs

## Kimley»Horn

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COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

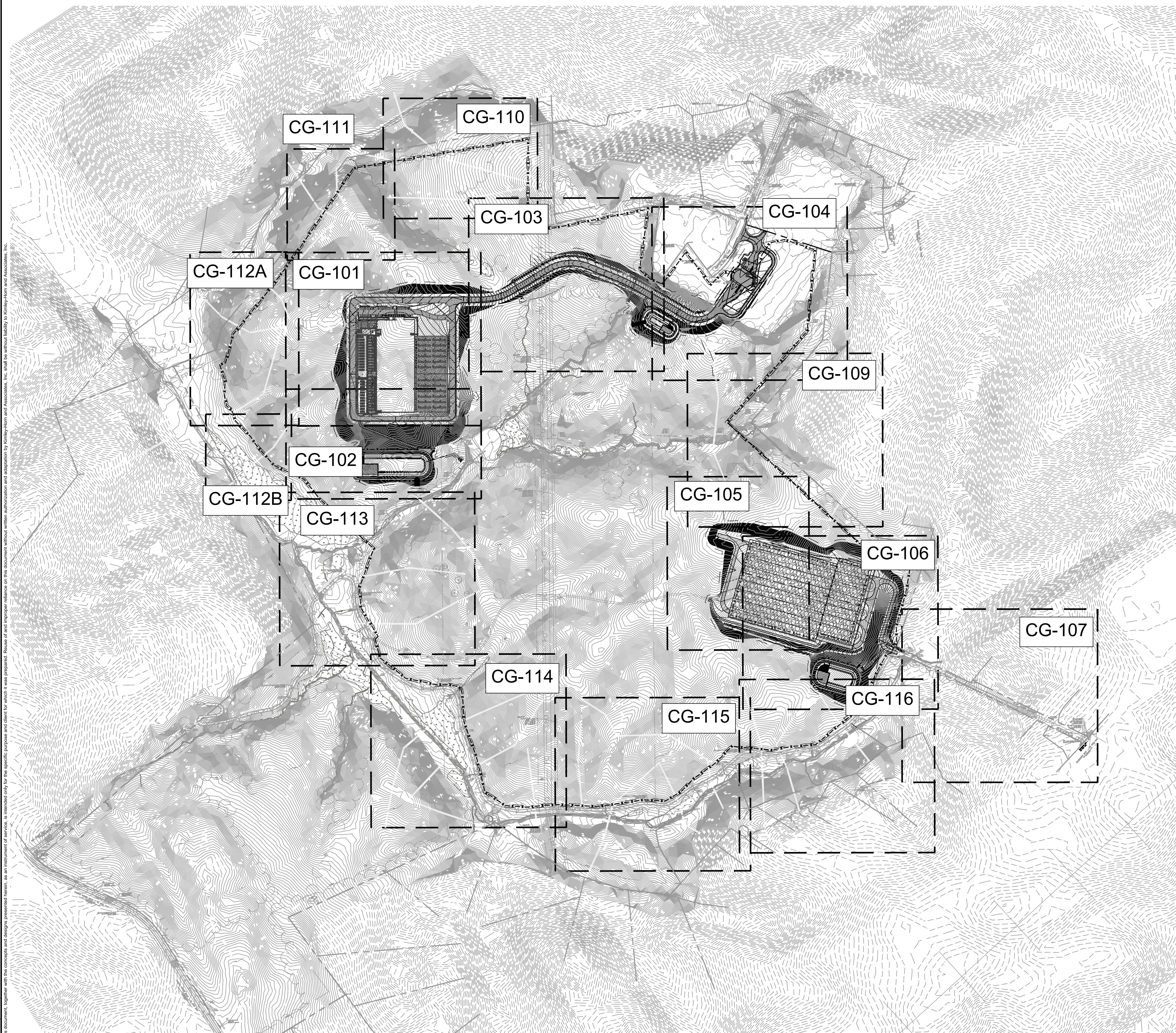
## SITE DETAILS

## PROJECT HERCULES

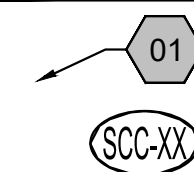
VA  
APPOMATTOX COUNTY

SHEET NUMBER  
CS-502





### GRADING LEGEND



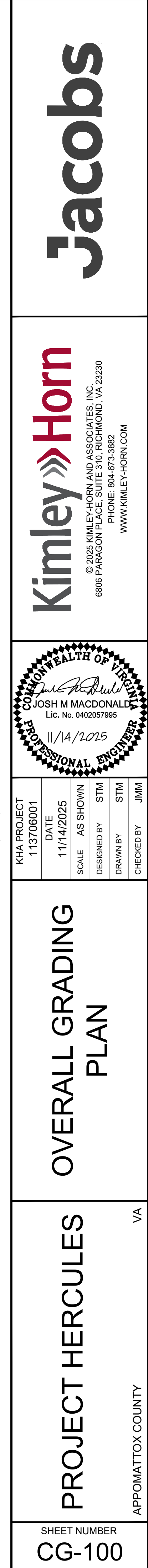
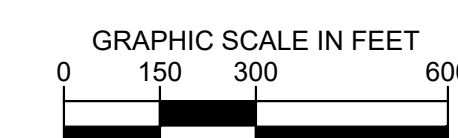
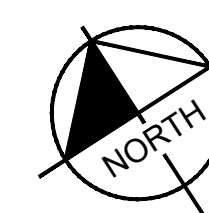
- |             |                                 |
|-------------|---------------------------------|
| TC:         | TOP OF CURB ELEVATION           |
| BC:         | BOTTOM OF CURB ELEVATION        |
| FFE:        | FINISHED FLOOR ELEVATION        |
| FG:         | FINISHED SURFACE ELEVATION      |
| P:          | PAVEMENT ELEVATION              |
| G:          | GROUND ELEVATION                |
| TW:         | TOP OF WALL ELEVATION           |
| BW:         | BOTTOM OF WALL ELEVATION        |
| BD:         | BOTTOM OF DITCH                 |
| HP:         | HIGH POINT                      |
| (ME):       | MATCH EXISTING                  |
| SW:         | SIDEWALK                        |
| RIM:        | RIM OF STORM STRUCTURE          |
| <u>    </u> | <u>SPILLING CURB AND GUTTER</u> |

### GRADING NOTES

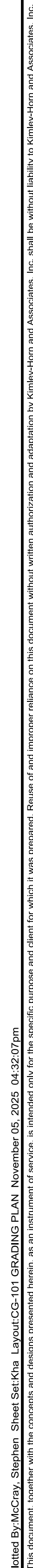
1. THE ROOF/LANDSCAPE DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE.
2. PIPE LENGTHS ARE MEASURED FROM CENTER OF CHAMBER TO CENTER OF CHAMBER.
3. VDOT STANDARD ST-1 STEPS ARE REQUIRED ON ALL STRUCTURES WITH HEIGHT GREATER THAN 4 FEET.
4. ADA ACCESSIBLE PARKING SPACES ARE SHOWN AND DESIGNED WITH A MAXIMUM 1.75% SLOPE IN ALL DIRECTIONS. CONTRACTOR TO ENSURE CROSS SLOPE DOES NOT EXCEED 2.0%.
5. PROPOSED SIDEWALK/ADA ACCESSIBLE ROUTES ARE SHOWN AS AND DESIGNED WITH A MAXIMUM 1.75% CROSS SLOPE AND A 4.0% LONGITUDINAL SLOPE. CONTRACTOR TO ENSURE CROSS SLOPE DOES NOT EXCEED 2.0% AND LONGITUDINAL SLOPE DOES NOT EXCEED 5.0%.
6. CONTRACTOR TO STAKE AND VERIFY FIELD ELEVATIONS AT POND OUTFALLS AND AREAS OF DISTURBANCE IN CLOSE PROXIMITY TO STREAMS AND WETLANDS. CONTRACTOR TO NOTIFY ENGINEER OF RESULTS OF ANY DISCREPANCIES FROM PLANS PRIOR TO INSTALLATION OF PROPOSED IMPROVEMENTS.
7. REFER TO THE GEOTECHNICAL REPORT FOR SITE SOILS INFORMATION AND EARTHWORK RECOMMENDATIONS OF WHICH SHALL BE CONSIDERED A PART OF THESE CONTRACT DOCUMENTS. SITE PREPARATION AND EARTHWORK OPERATIONS SHALL BE PER THE PREPARATIONS AND EARTHWORK RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT AND/OR AS DIRECTED BY THE TESTING AGENCY UNLESS NOTED IN THE PLANS.
8. SEE SHEET CE-503 FOR STORMWATER CONVEYANCE CHANNEL CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE PHASE II ETPS AND POST DEVELOPMENT DRAINAGE DESIGN SUMMARY TABLE ON SHEET CE-503.

**TRANSCONTINENTAL GAS PIPELINE  
RIGHT-OF-WAY WORK NOTES**

1. **ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.**
2. **VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.**
3. **EXCAVATION: NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET, WELD OR ATTACH A BAR ACROSS THE TEETH.**
4. **CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90° AS POSSIBLE.**
5. **NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.**







### GRADING NOTES

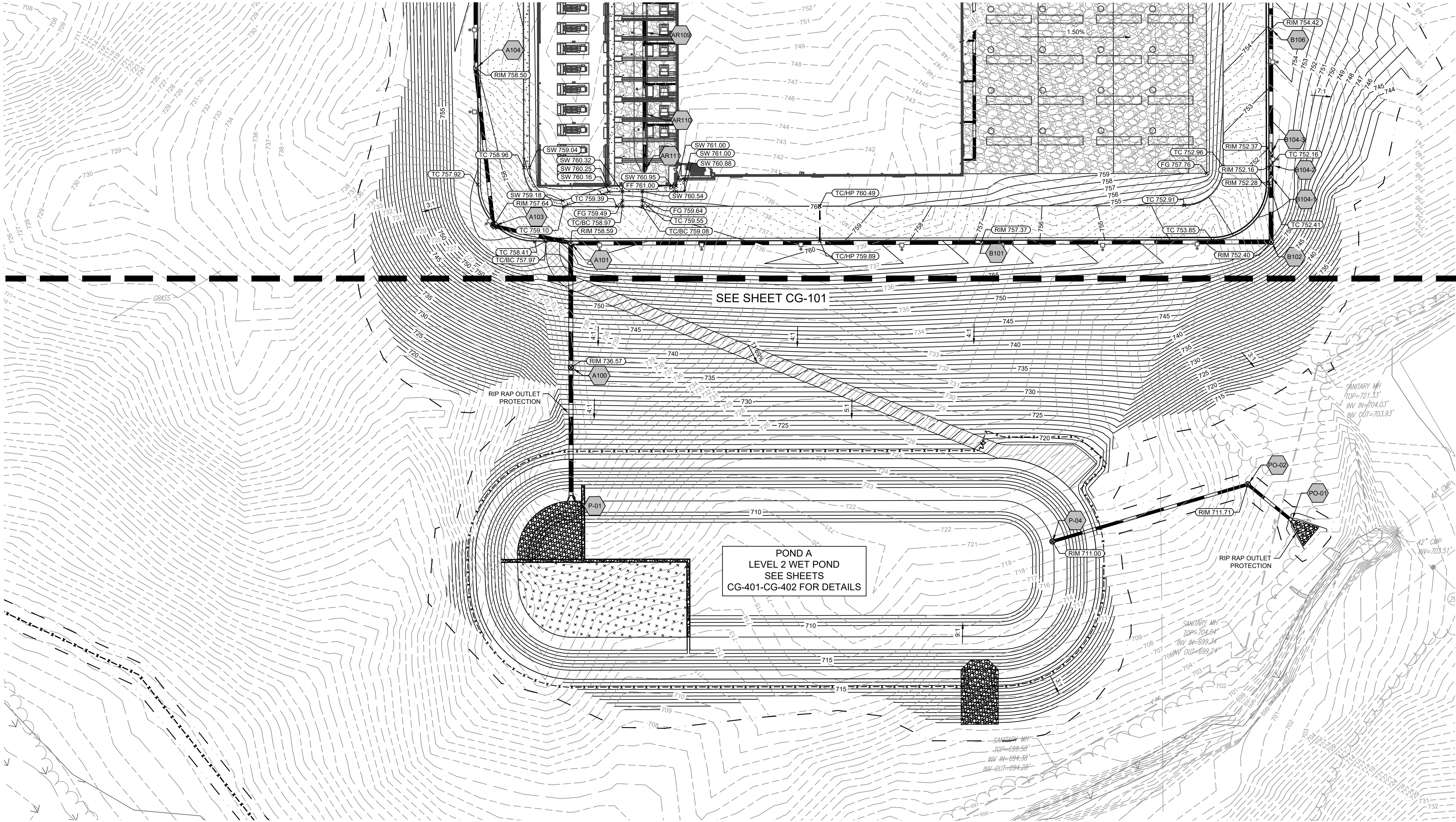
- TRANSCONTINENTAL GAS PIPELINE
- 
- RIGHT-OF-WAY WORK NOTES

- GRAPHIC SCALE IN FEET
- 
- A horizontal line with vertical tick marks at 0, 25, 50, and 100. The segment between 0 and 25 is white, 25 and 50 is black, 50 and 75 is white, and 75 and 100 is black.

SHEET NUMBER  
**CG-101**



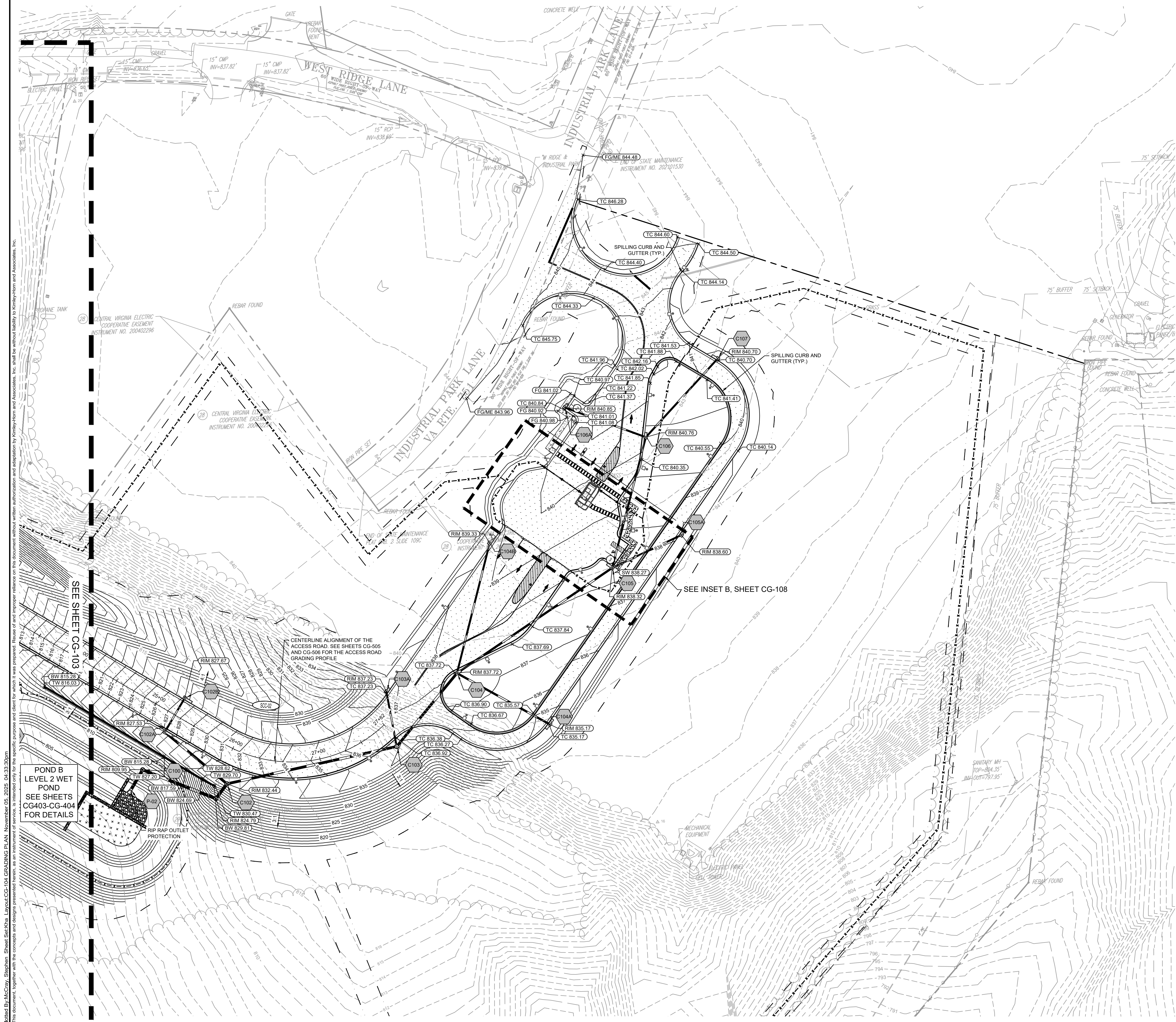
Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CG-102 GRADING PLAN November 05, 2025 04:32:37pm  
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GRADING LEGEND

- 01 STRUCTURE LABEL
- SQC-XX STORMWATER CONVEYANCE CHANNEL
- TC: TOP OF CURB ELEVATION  
BC: BOTTOM OF CURB ELEVATION  
FFE: FINISHED FLOOR ELEVATION  
FG: FINISHED SURFACE ELEVATION  
P: PAVEMENT ELEVATION  
G: GROUND ELEVATION  
TW: TOP OF WALL ELEVATION  
BW: BOTTOM OF WALL ELEVATION  
BD: BOTTOM OF DITCH  
HP: HIGH POINT  
(ME): MATCH EXISTING  
SW: SIDEWALK  
RIM: RIM OF STORM STRUCTURE  
SPILLING CURB AND GUTTER

GRADING NOTES

- THE ROOFLANDSCAPE DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE.
- PIPE LENGTHS ARE MEASURED FROM CENTER OF CHAMBER TO CENTER OF CHAMBER.
- VDOT STANDARD ST-1 STEPS ARE REQUIRED ON ALL STRUCTURES WITH HEIGHT GREATER THAN 4 FEET.
- ADA ACCESSIBLE PARKING SPACES ARE SHOWN AND DESIGNED WITH A MAXIMUM 1.75% SLOPE IN ALL DIRECTIONS. CONTRACTOR TO ENSURE CROSS SLOPE DOES NOT EXCEED 2.0%.
- PROPOSED SIDEWALK/ADA ACCESSIBLE ROUTES ARE SHOWN AS AND DESIGNED WITH A MAXIMUM 1.75% CROSS SLOPE AND A 4.75% LONGITUDINAL SLOPE. CONTRACTOR TO ENSURE CROSS SLOPE DOES NOT EXCEED 2.0% AND LONGITUDINAL SLOPE DOES NOT EXCEED 5.0%.
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- REFER TO THE GEOTECHNICAL REPORT FOR SITE SOILS INFORMATION AND EARTHWORK RECOMMENDATIONS OF WHICH SHALL BE CONSIDERED A PART OF THESE CONTRACT DOCUMENTS. SITE PREPARATION AND EARTHWORK OPERATIONS SHALL BE PER THE PROJECT SPECIFICATIONS. RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT AND/OR AS DIRECTED BY THE TESTING AGENCY UNLESS NOTED IN THE PLANS.
- SEE SHEET CE-503 FOR STORMWATER CONVEYANCE CHANNEL CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE "PHASE II ETS AND POST DEVELOPMENT DITCH DESIGN SUMMARY TABLE" ON SHEET CE-503.

TRANSCONTINENTAL GAS PIPELINE  
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# Jacobs

## Kimley»Horn

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COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

### PROJECT HERCULES

## GRADING PLAN

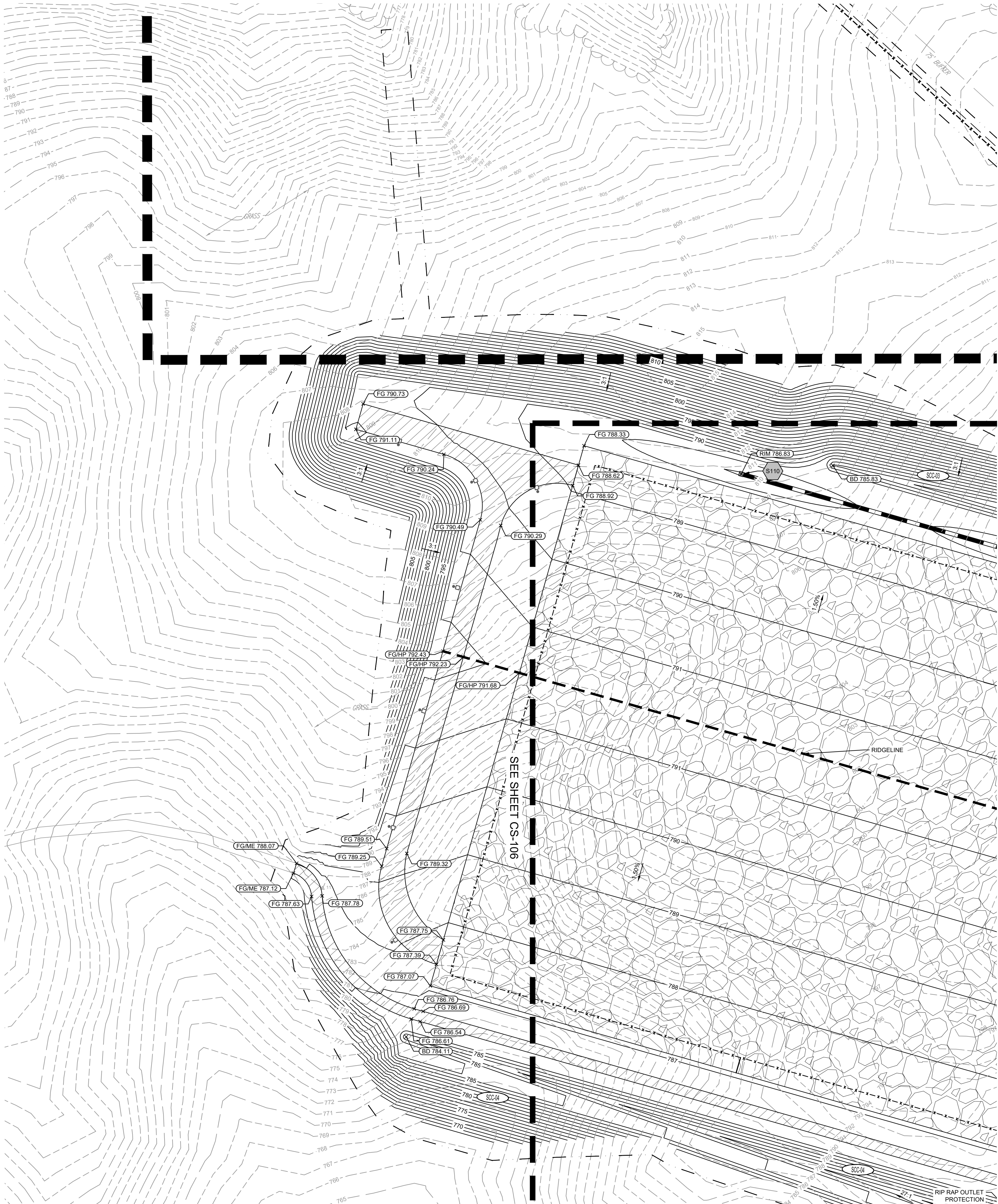
VA

APPOMATTOX COUNTY

SHEET NUMBER  
**CG-104**



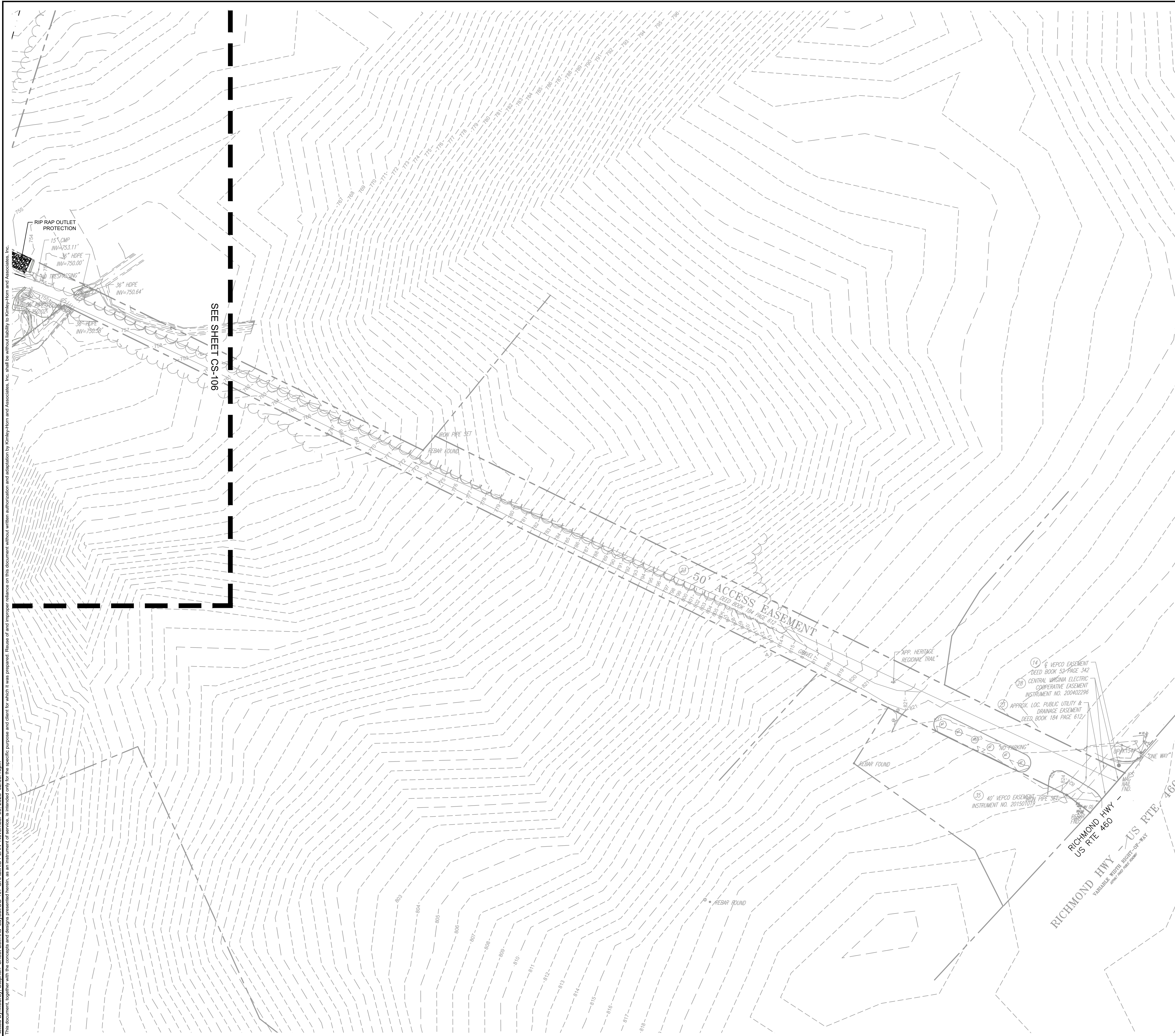
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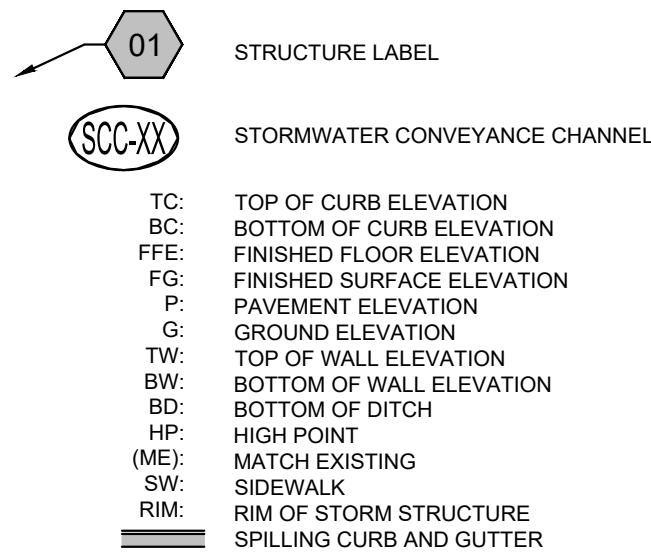








### GRADING LEGEND

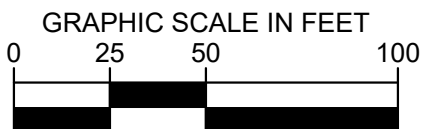
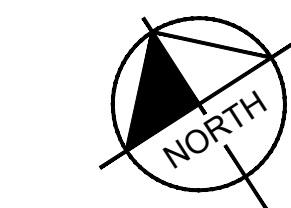


### GRADING NOTES

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7. REFER TO THE GEOTECHNICAL REPORT FOR SITE SOILS INFORMATION AND EARTHWORK RECOMMENDATIONS OF WHICH SHALL BE CONSIDERED A PART OF THESE CONTRACT DOCUMENTS. SITE PREPARATION AND EARTHWORK OPERATIONS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT AND/OR AS DIRECTED BY THE TESTING AGENCY UNLESS NOTED IN THE PLANS.
8. SEE SHEET CE-503 FOR STORMWATER CONVEYANCE CHANNEL CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN CHANNEL EROSION AND POST DEVELOPMENT DITCH DESIGN SUMMARY TABLE." ON SHEET CE-503.

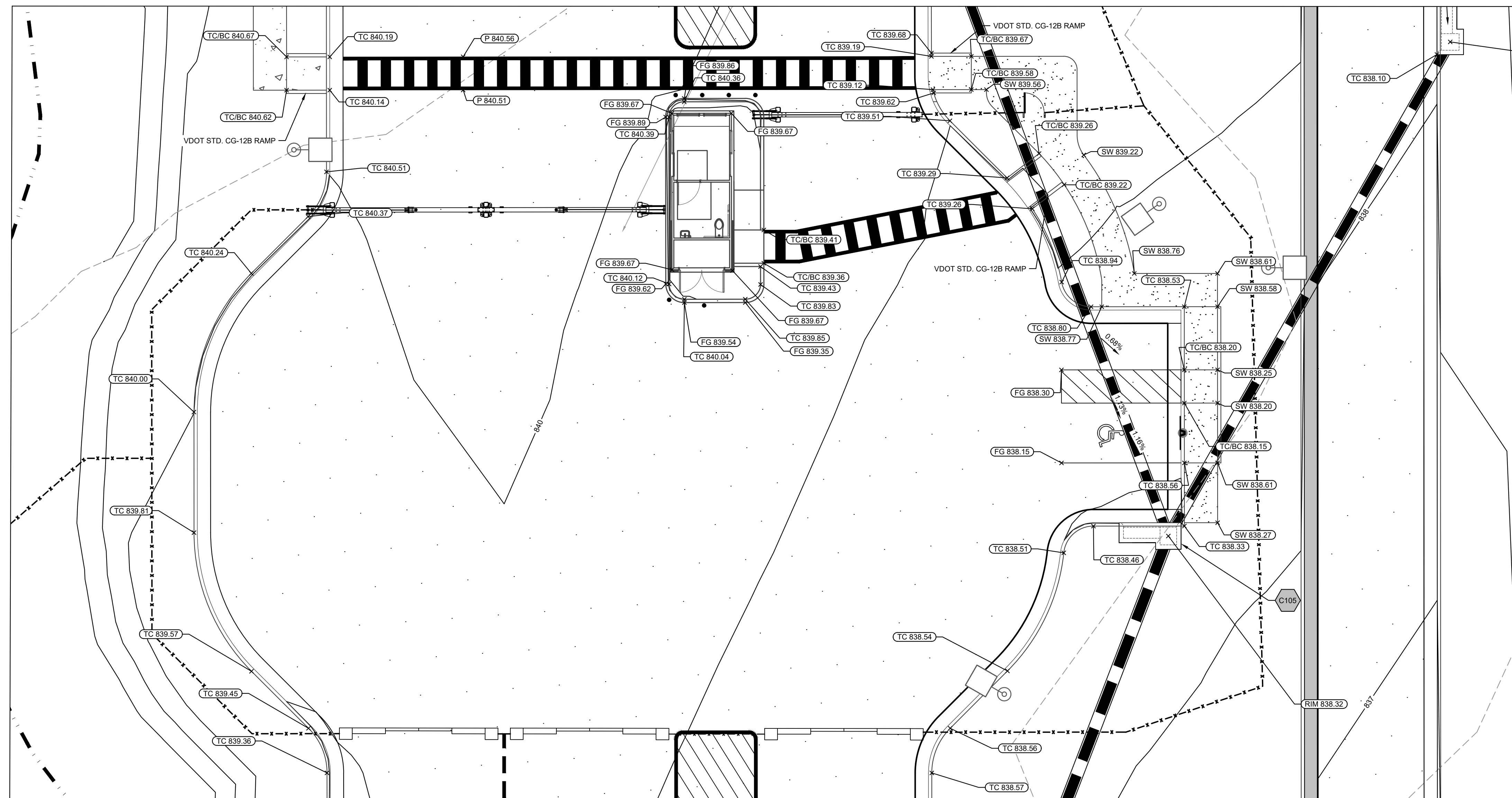
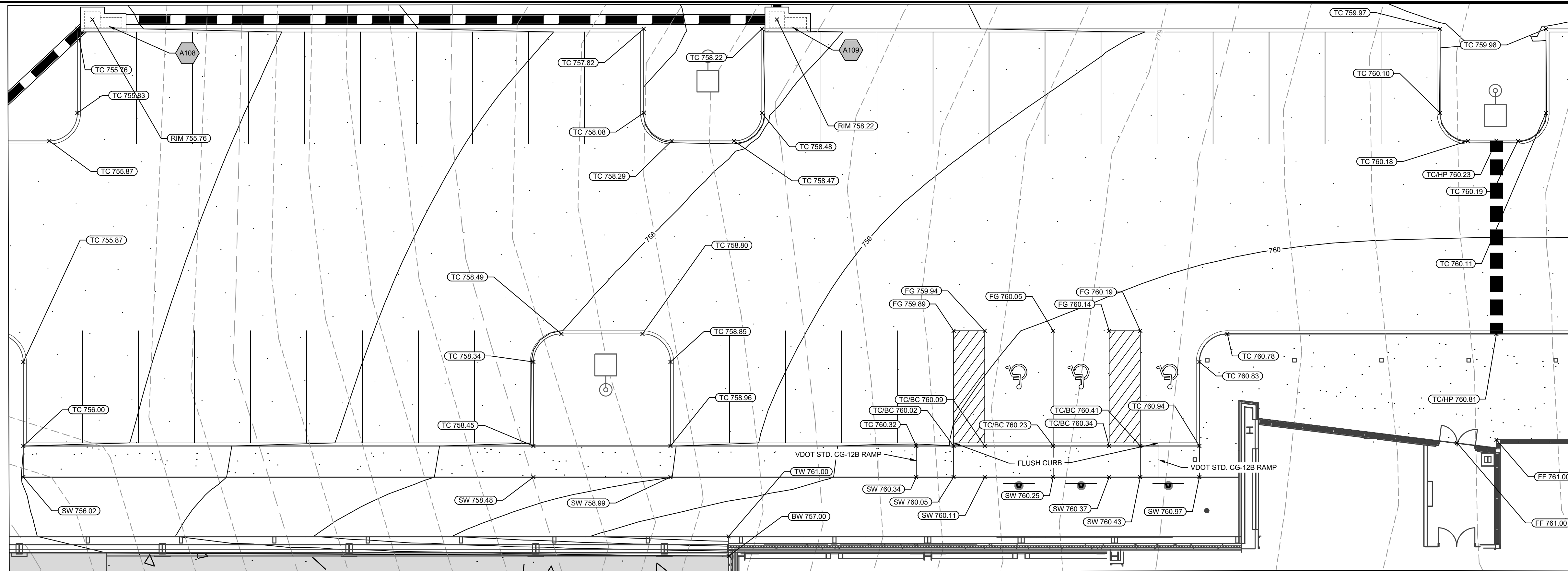
# TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY WORK NOTES

1. **ONSITE:** AN AUTHORIZED SURFACES REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE CONTINENTAL/GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY MUST ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
2. **VIOLATORY EQUIPMENT:** VIOLATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIOLATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTON REQUIREMENTS.
3. **EXCAVATION:** NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET, WELD OR ATTACH A BAR ACROSS THE TEETH.
4. **CROSSING ANGLE:** ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90 AS POSSIBLE.
5. **CURVES:** NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.



|                                                                                                                                                                                                                                                                                 |                  |              |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|--------------------------|
| SHEET NUMBER<br><b>CG-107</b>                                                                                                                                                                                                                                                   | PROJECT HERCULES | GRADING PLAN | KHA PROJECT<br>113706001 |
| APPOMATTOX COUNTY                                                                                                                                                                                                                                                               | VA               |              | DATE<br>11/14/2025       |
|                                                                                                                                                                                                                                                                                 |                  |              | SCALE AS SHOWN           |
|                                                                                                                                                                                                                                                                                 |                  |              | DESIGNED BY STM          |
|                                                                                                                                                                                                                                                                                 |                  |              | DRAWN BY STM             |
|                                                                                                                                                                                                                                                                                 |                  |              | CHECKED BY JMM           |
|  <p><b>Kimley»Horn</b><br/>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br/>6806 PARAGON PLACE SUITE 310, RICHMOND, VA 23230<br/>PHONE: 804-673-3882<br/>WWW.KIMLEY-HORN.COM</p> <h1>Jacobs</h1> |                  |              |                          |





## GRADING LEGEND

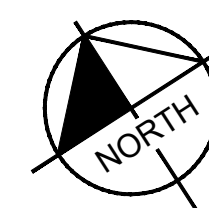
- |                                                                                     |                               |
|-------------------------------------------------------------------------------------|-------------------------------|
|   | STRUCTURE LABEL               |
|  | STORMWATER CONVEYANCE CHANNEL |
| TC:                                                                                 | TOP OF CURB ELEVATION         |
| BC:                                                                                 | BOTTOM OF CURB ELEVATION      |
| FFE:                                                                                | FINISHED FLOOR ELEVATION      |
| F:                                                                                  | FINISHED SURFACE ELEVATION    |
| P:                                                                                  | PAVEMENT ELEVATION            |
| G:                                                                                  | GROUND ELEVATION              |
| TW:                                                                                 | TOP OF WALL ELEVATION         |
| BW:                                                                                 | BOTTOM OF WALL ELEVATION      |
| BD:                                                                                 | BOTTOM OF DITCH               |
| HP:                                                                                 | HIGH POINT                    |
| (ME):                                                                               | MATCH EXISTING                |
| SW:                                                                                 | SIDEWALK                      |
| SRM:                                                                                | SPILL OF STORM STRUCTURE      |
|  | IRILLING CURB AND GUTTER      |

### GRADING NOTES

1. THE ROOF/LANDSCAPE DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE.
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8. SEE SHEET CE-S03 FOR STORMWATER CONVEYANCE CHANNEL CALCULATIONS. CONTRACTOR TO INSTALL CHANNEL LININGS AS NOTED IN THE PHASE I EROSION AND POST DEVELOPMENT DITCH DESIGN SUMMARY TABLE" ON SHEET CE-S03.

**TRANSCONTINENTAL GAS PIPELINE  
RIGHT-OF-WAY WORK NOTES**

1. ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE CONTINENTALTANK GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
2. VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
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5. NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.



GRAPHIC SCALE IN FEET

0 5 10 20

COMMONWEALTH OF VIRGINIA  
 JOSH M MACDONALD  
 Lic. No. 0402057995  
 11/14/2025  
 PROFESSIONAL ENGINEER

|             |            |       |          |             |    |          |    |            |    |
|-------------|------------|-------|----------|-------------|----|----------|----|------------|----|
| KHA PROJECT | DATE       | SCALE | AS SHOWN | DESIGNED BY | ST | DRAWN BY | ST | CHECKED BY | IM |
| 113706001   | 11/14/2025 |       |          |             |    |          |    |            |    |

# DETAILED GRADING PLAN

# PROJECT HERCULES

SHEET NUMBER  
**CG-108**

APPOMATTOX COUNTY

VA

**Kimley»Horn**  
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6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230  
PHONE: 804-673-3882  
[MARK@KIMLEY-HORN.COM](mailto:MARK@KIMLEY-HORN.COM)

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PLACE, SUITE 310, RICHMOND, VA 23230  
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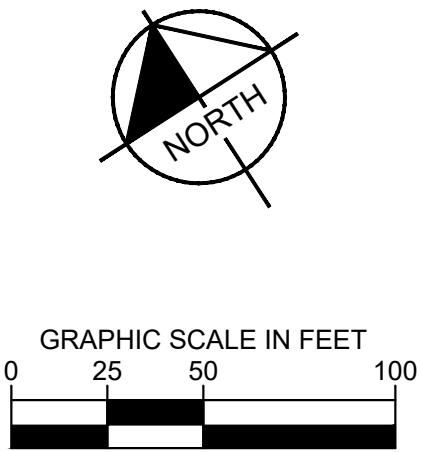
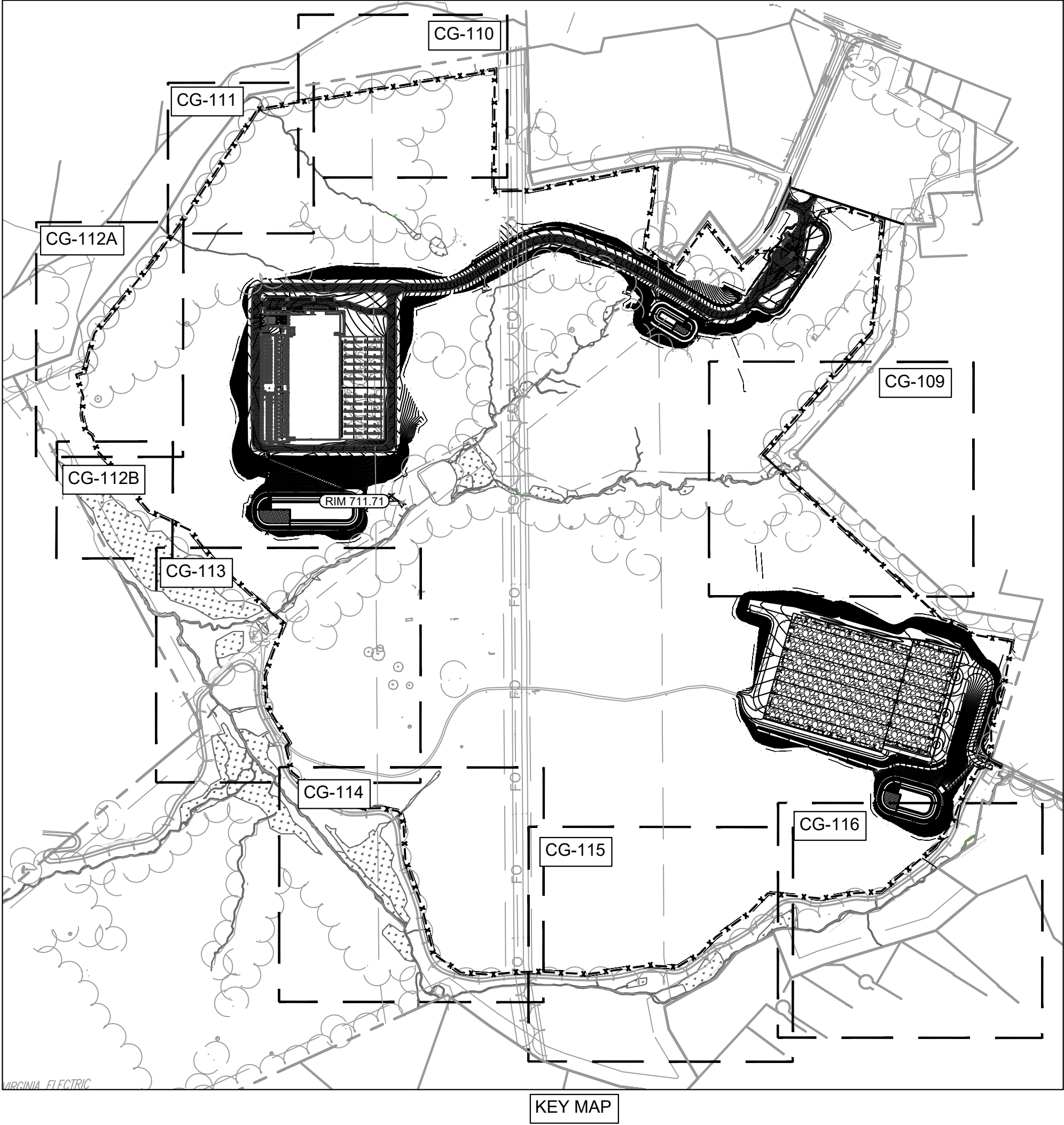












PROJECT HERCULES

SHEET NUMBER  
CG-111

APPOMATTOX COUNTY

VA

SITE FENCE  
EXTENSION

|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

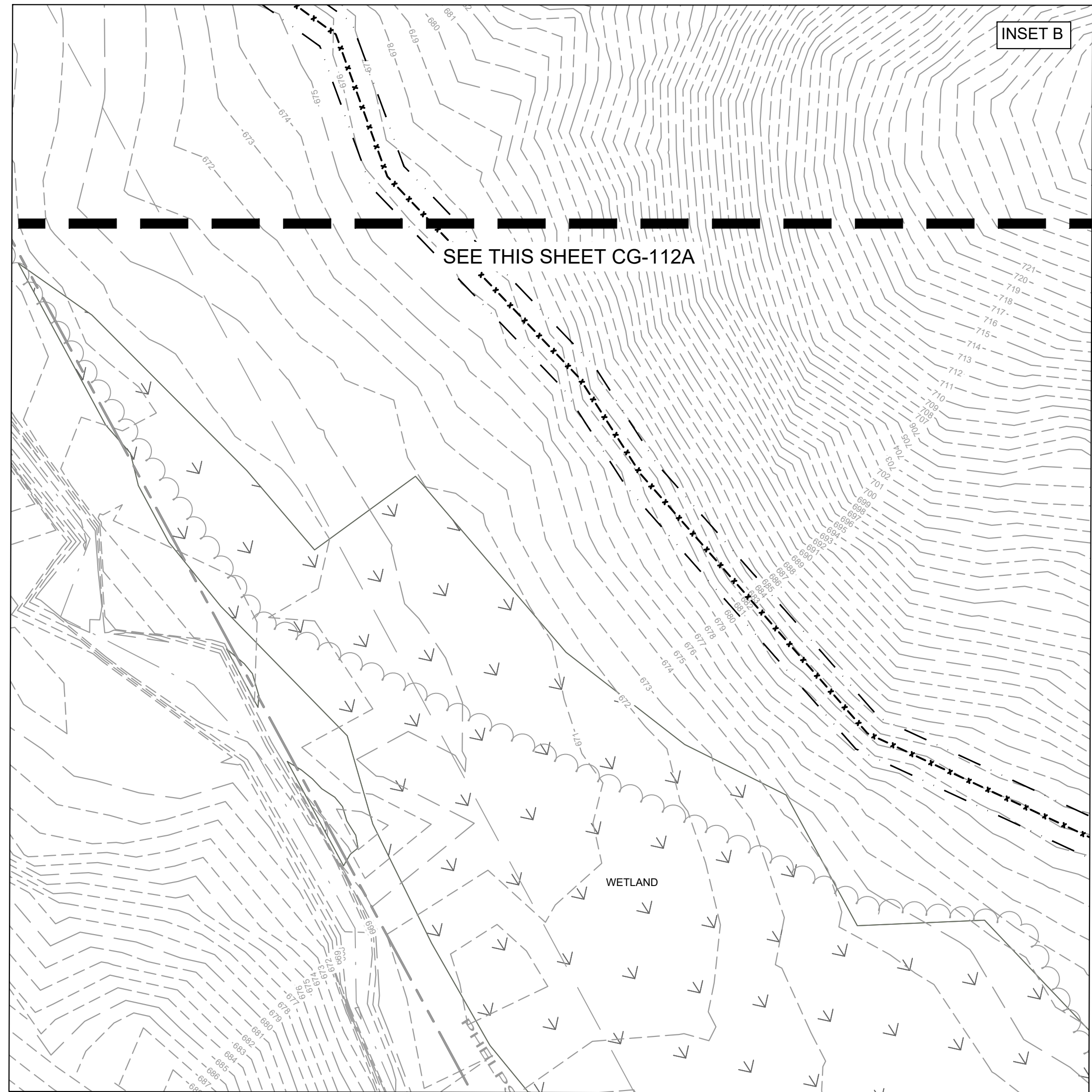
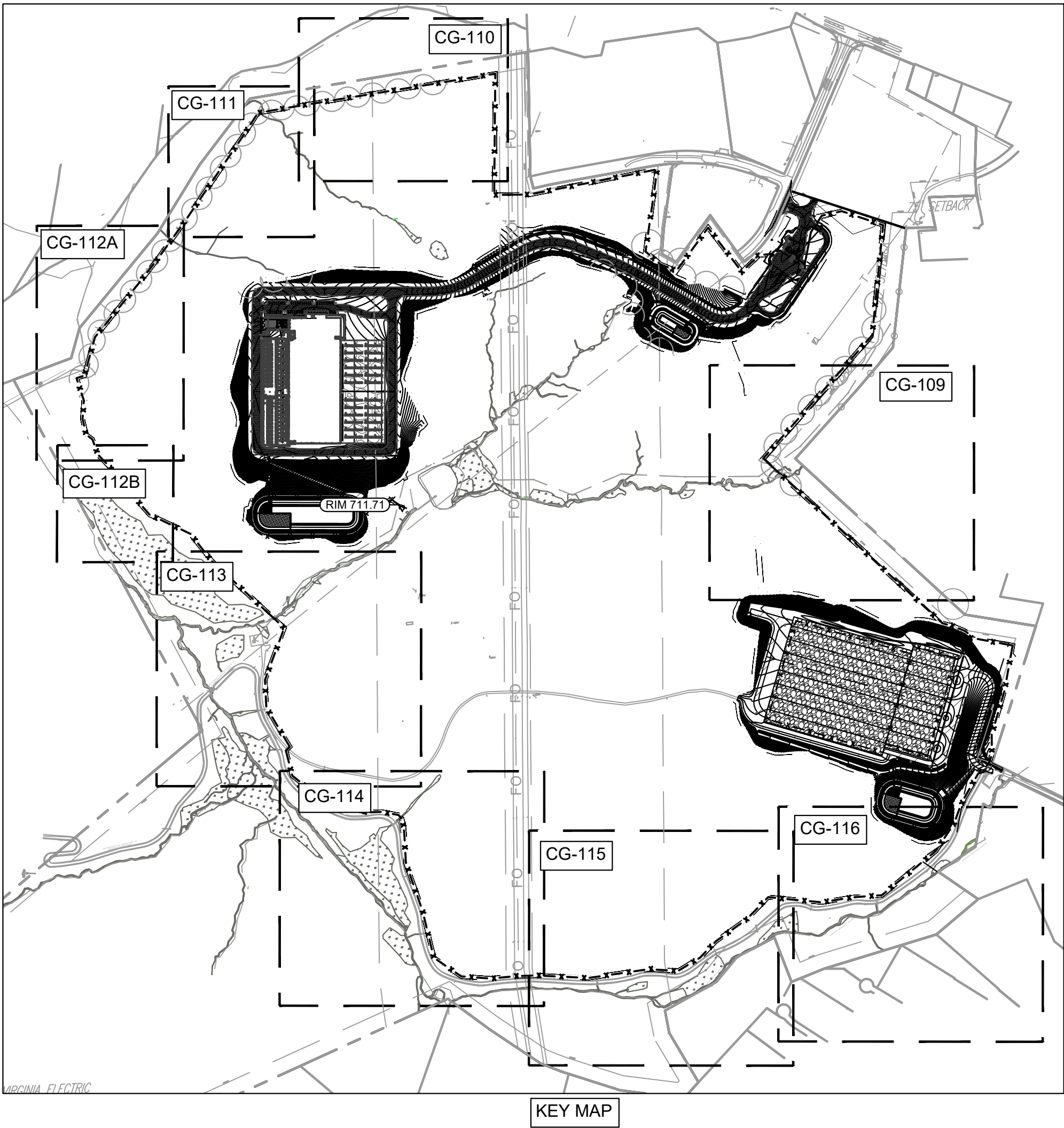
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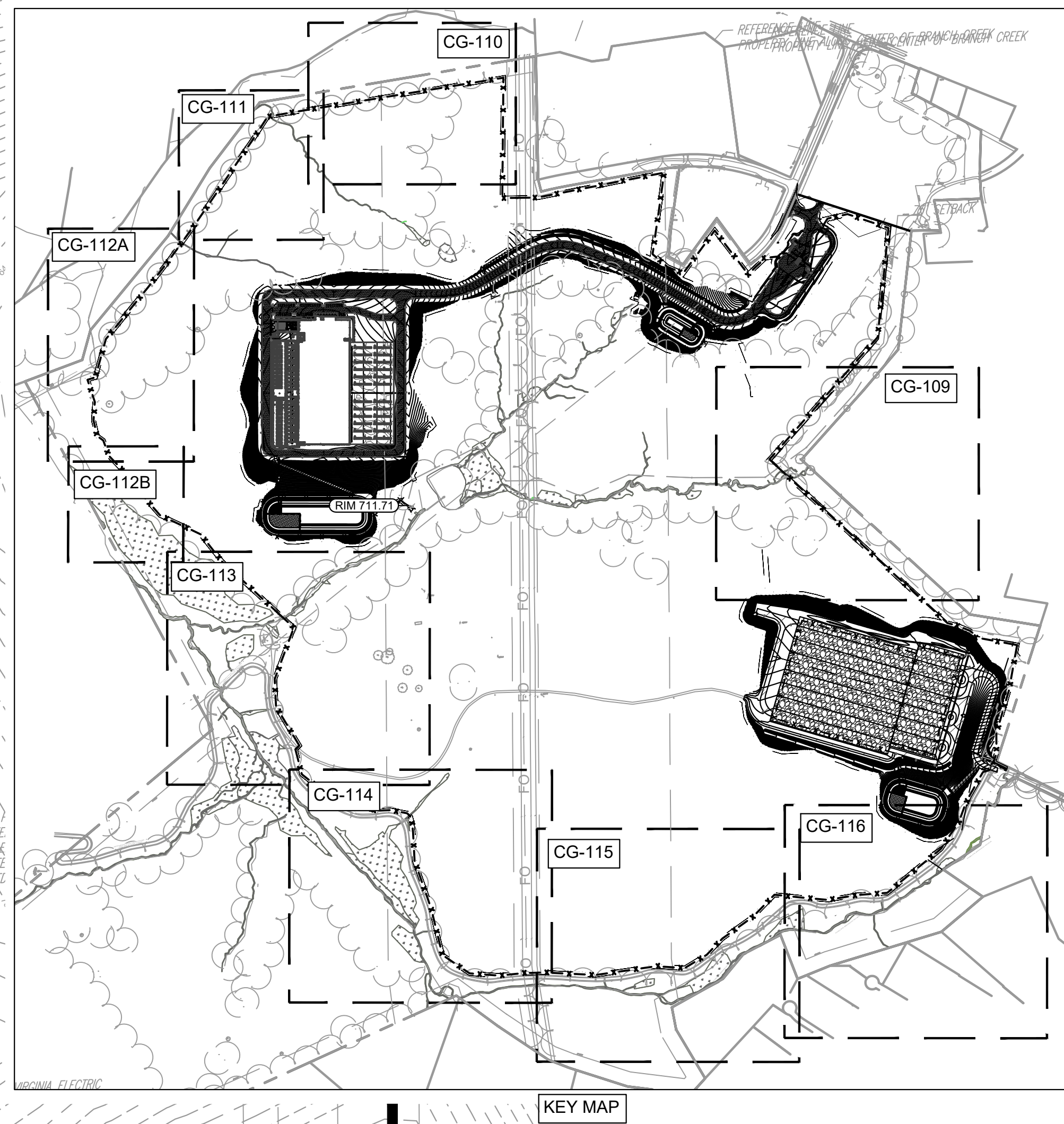


|                                                                                                                                            |  |                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| PROJECT HERCULES                                                                                                                           |  | SHEET NUMBER<br>CG-112 |  |
| APPOMATTOX COUNTY                                                                                                                          |  | VA                     |  |
| SITE FENCE<br>EXTENSION                                                                                                                    |  |                        |  |
| KHA PROJECT<br>113706001                                                                                                                   |  | DATE<br>11/14/2025     |  |
| SCALE<br>AS SHOWN                                                                                                                          |  | DESIGNED BY<br>STM     |  |
| DRAWN BY<br>JMM                                                                                                                            |  | CHECKED BY<br>JMM      |  |
|                                                                                                                                            |  |                        |  |
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| Jacobs                                                                                                                                     |  |                        |  |



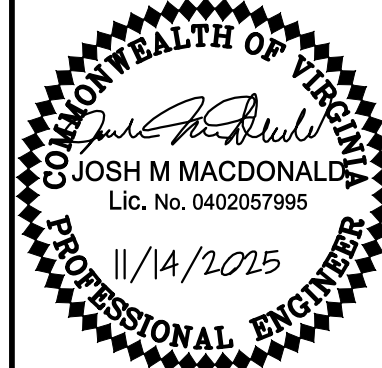






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|                          |                    |                |                 |              |                |
|--------------------------|--------------------|----------------|-----------------|--------------|----------------|
| KHA PROJECT<br>113706001 | DATE<br>11/14/2025 | SCALE AS SHOWN | DESIGNED BY STM | DRAWN BY STM | CHECKED BY JMM |
|--------------------------|--------------------|----------------|-----------------|--------------|----------------|

# SITE FENCE EXTENSION

# PROJECT HERCULES

SHEET NUMBER  
**CG-114**



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PROJECT HERCULES

SHEET NUMBER  
CG-115

APPOMATTOX COUNTY

VA

SITE FENCE  
EXTENSION

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY STM

DRAWN BY STM

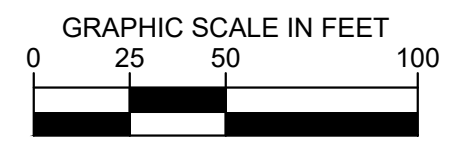
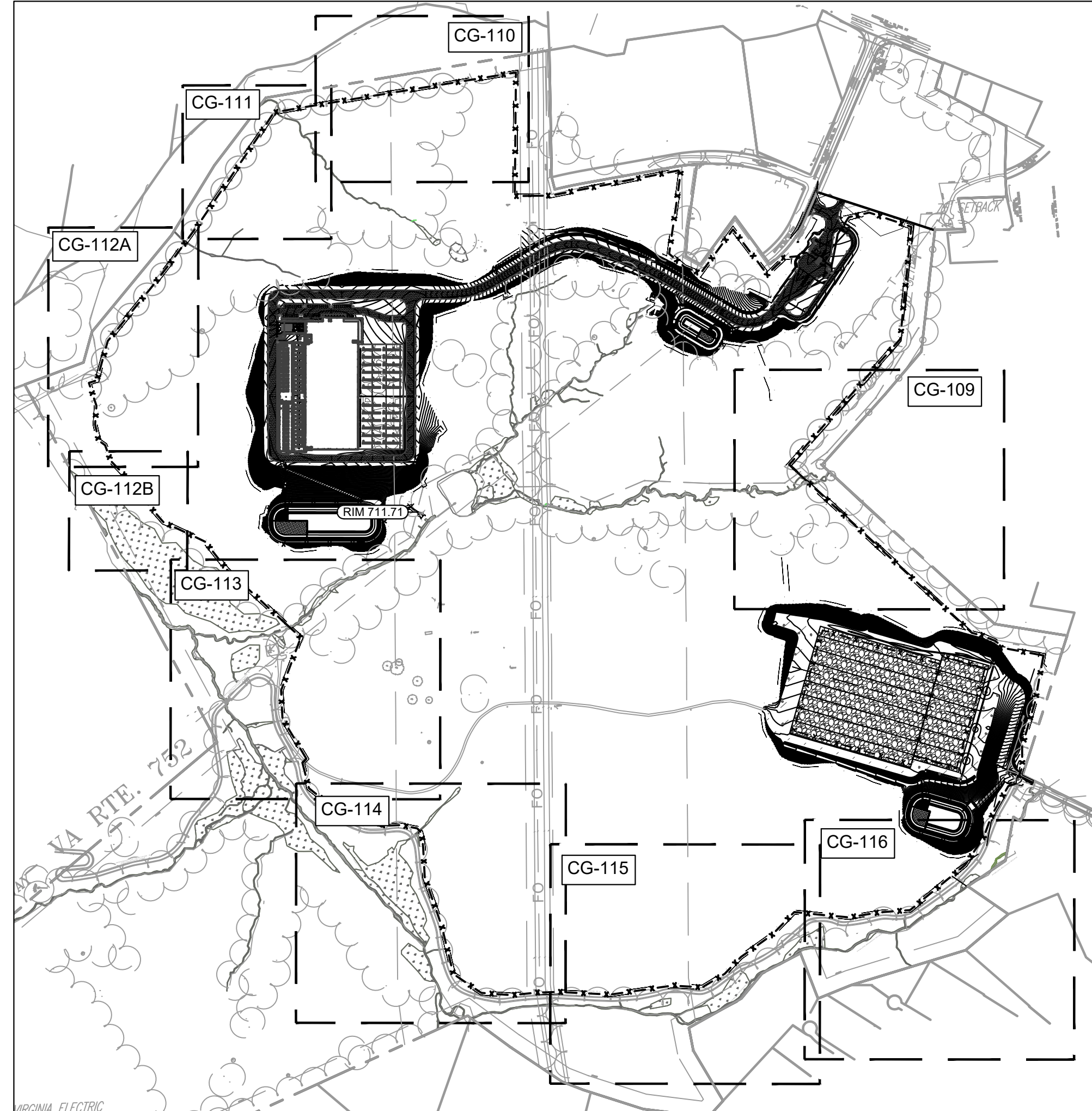
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PROJECT HERCULES

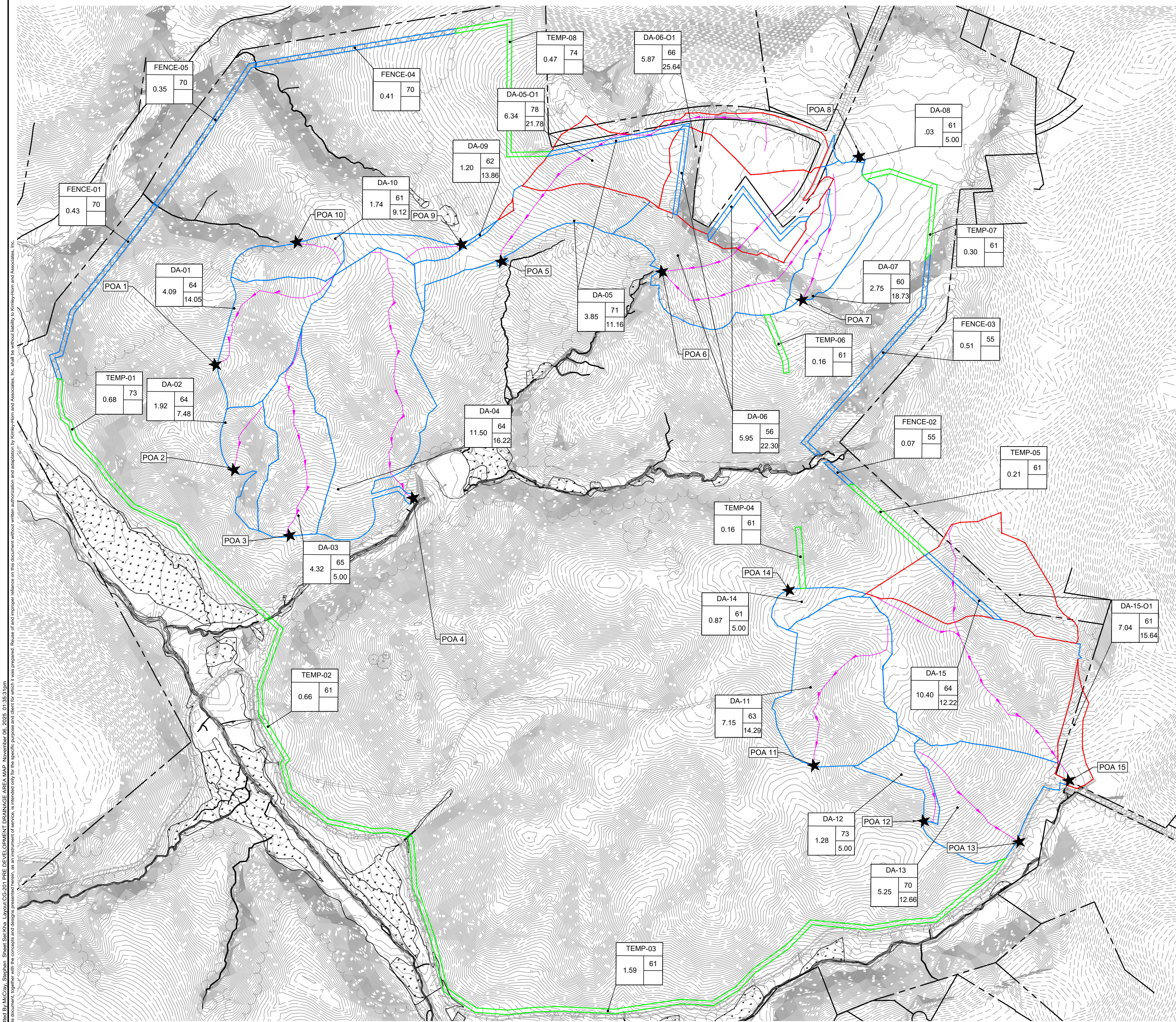
JACOBS





|                   |  |                      |  |                          |  |
|-------------------|--|----------------------|--|--------------------------|--|
| PROJECT HERCULES  |  | SITE FENCE EXTENSION |  | KHA PROJECT<br>113706001 |  |
| APPOMATTOX COUNTY |  | VA                   |  | DATE<br>11/14/2025       |  |
| SHEET NUMBER      |  | CG-116               |  | SCALE AS SHOWN           |  |
|                   |  |                      |  | DESIGNED BY STM          |  |
|                   |  |                      |  | DRAWN BY STM             |  |
|                   |  |                      |  | CHECKED BY JMM           |  |





**DRAINAGE AREA MAP LEGEND**

- ONSITE DRAINAGE AREA BOUNDARY
- OFFSITE DRAINAGE AREA BOUNDARY
- TEMPORARY WORKSPACE
- TIME OF CONCENTRATION
- LIMITS OF DISTURBANCE

|   |   |
|---|---|
| A | C |
| B | D |

DRAINAGE AREA LABEL  
A - DRAINAGE AREA NAME  
B - AREA (AC)  
C - RUNOFF COEFFICIENT  
D - TIME OF CONCENTRATION (MIN.)

ANALYZED POA  
RUNOFF HAS BEEN REROUTED TO ANOTHER POA

PROJECT HERCULES

CG-201

SHEET NUMBER

CG-201

APPOMATTOX COUNTY

VA

PRE DEVELOPMENT DRAINAGE AREA MAP

KHA PROJECT

113706001

DATE

11/14/2025

SCALE

AS SHOWN

DESIGNED BY

STM

DRAWN BY

STM

CHECKED BY

JMM

COMMONWEALTH OF VIRGINIA

JOSH M MACDONALD

Lic. No. 0402057995

11/14/2025

PROFESSIONAL ENGINEER

Kimley»Horn

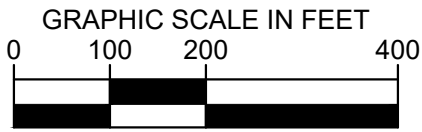
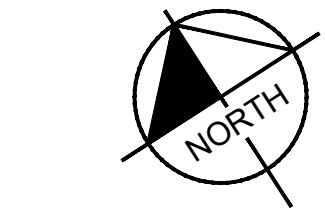
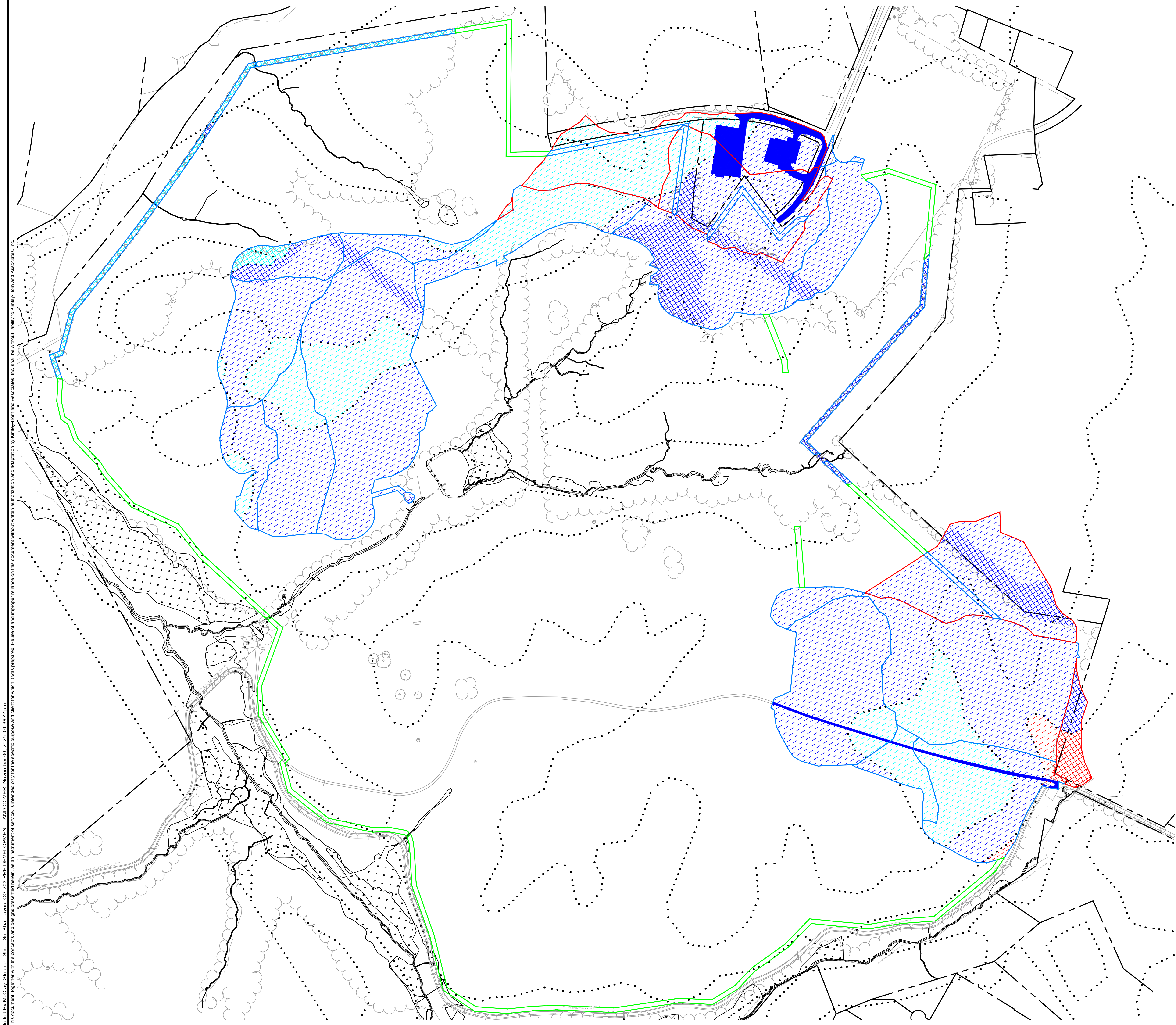
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- PRE-DEV DRAINAGE AREA MAP LEGEND**
- FORESTED AREA - B SOILS
  - FORESTED AREA - C SOILS
  - FORESTED AREA - D SOILS
  - PASTURE AREA - B SOILS
  - PASTURE AREA - C SOILS
  - PASTURE AREA - D SOILS
  - IMPERVIOUS AREA
  - BRUSH AREA - B SOILS
  - BRUSH AREA - C SOILS
  - BRUSH AREA - D SOILS
  - SOIL TYPE BOUNDARY
  - ONSITE DRAINAGE AREA BOUNDARY
  - OFFSITE DRAINAGE AREA BOUNDARY
  - TEMPORARY WORKSPACE
  - LAND DISTURBANCE BOUNDARY

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PROJECT HERCULES

APPOMATTOX COUNTY

SHEET NUMBER  
CG-203

PRE DEVELOPMENT  
LAND COVER

VA

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY STM

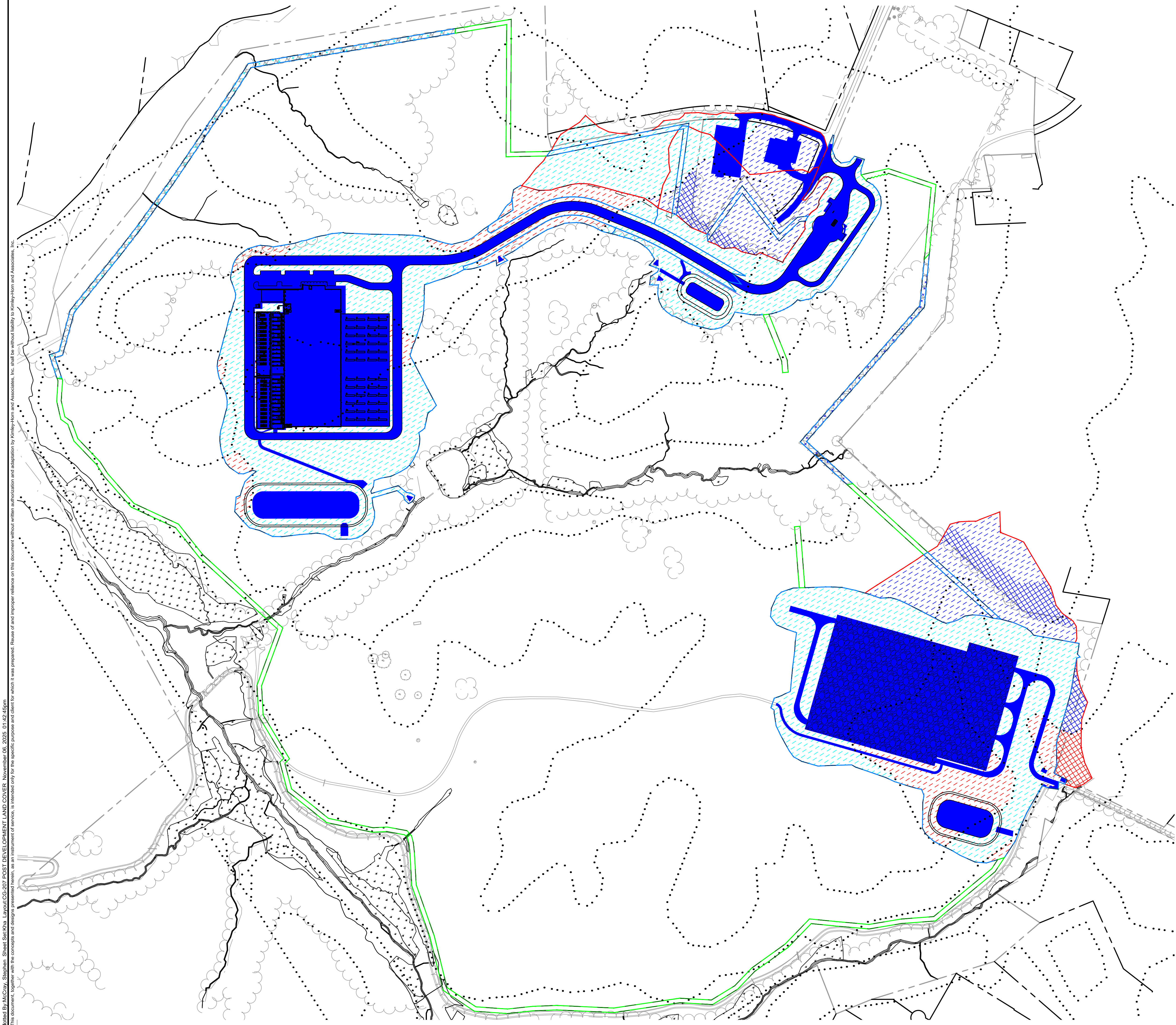
DRAWN BY STM

CHECKED BY JMM

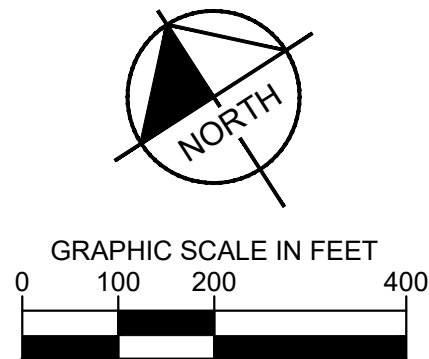
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11/14/2025  
PROFESSIONAL ENGINEER

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- POST-DEV DRAINAGE AREA MAP LEGEND**
- FORESTED AREA - B SOILS
  - FORESTED AREA - C SOILS
  - FORESTED AREA - D SOILS
  - MANAGED TURF AREA - B SOILS
  - MANAGED TURF AREA - C SOILS
  - MANAGED TURF AREA - D SOILS
  - IMPERVIOUS AREA
  - BRUSH AREA - B SOILS
  - BRUSH AREA - C SOILS
  - BRUSH AREA - D SOILS
  - SOIL TYPE BOUNDARY
  - ONSITE DRAINAGE AREA BOUNDARY
  - OFFSITE DRAINAGE AREA BOUNDARY
  - TEMPORARY WORKSPACE
  - LAND DISTURBANCE BOUNDARY



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PROJECT HERCULES

APPOMATTOX COUNTY

SHEET NUMBER  
CG-204

POST DEVELOPMENT  
LAND COVER

VA

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY

DRAWN BY

CHECKED BY

STM

STM

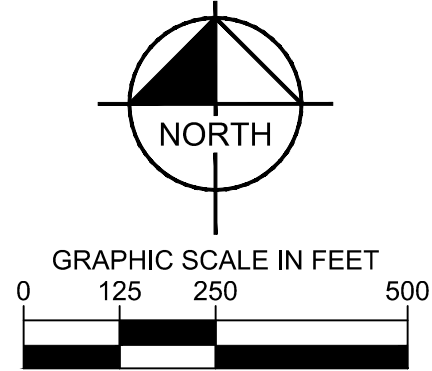
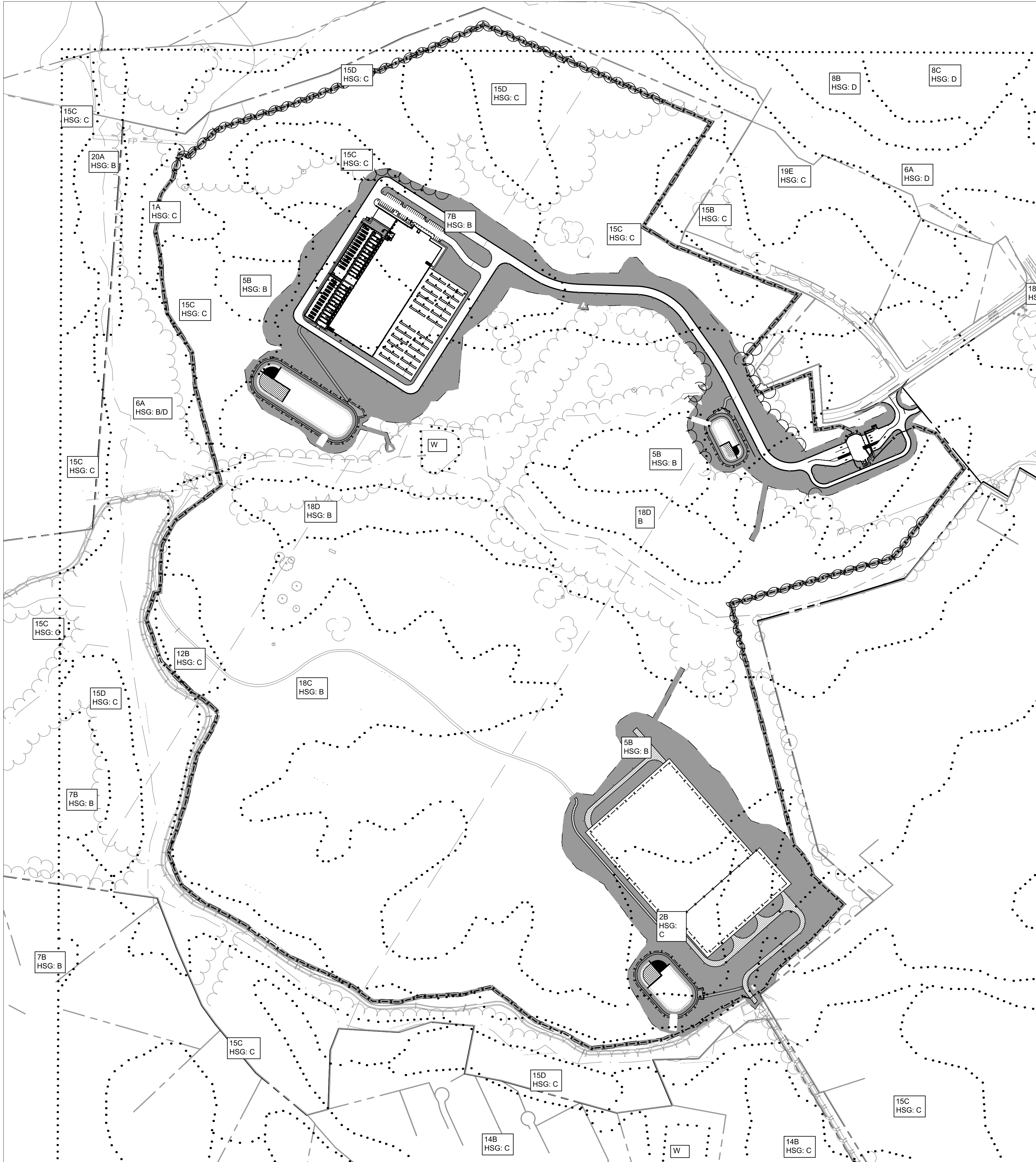
JMM

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Plotted By:McGray, Stephen Sheet Set:Kha Layout:CG-205 STORMWATER QUALITY PLAN December 08, 2025 02:56:36pm  
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**STORMWATER QUALITY LEGEND**

- IMPERVIOUS COVER
- MANAGED TURF
- LIMITS OF DISTURBANCE

STORMWATER QUALITY - SITE INFORMATION

Project Name:Project Hercules - Appomattox

Date:12/8/2025

CLEAR ALL  
(ctrl+shift+H)

data input calls  
constant values  
calculation calls  
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

| Land Cover (acres)                                                                      | A Soils | B Soils | C Soils | D Soils | Totals |
|-----------------------------------------------------------------------------------------|---------|---------|---------|---------|--------|
| Forest (acres) – undisturbed, protected forest or reforested land                       |         |         |         |         | 0.00   |
| Mixed Open (acres) – undisturbed/frequently maintained grass or shrub land              |         |         |         |         | 0.00   |
| Managed Turf (acres) – disturbed, graded for yards or other turf to be mowed/maintained |         | 27.74   | 7.00    | 4.95    | 39.69  |
| Impervious Cover (acres)                                                                |         |         |         | 28.70   | 28.70  |
|                                                                                         |         |         |         |         | 68.39  |

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)35.03

LAND COVER SUMMARY – POST DEVELOPMENT

| Land Cover Summary         | Treatment Volume and Nutrient Loads |
|----------------------------|-------------------------------------|
| Forest Cover (acres)       | 0.00                                |
| Weighted Rv (Forest)       | 0.00                                |
| % Forest                   | 0%                                  |
| Mixed Open (acres)         | 0.00                                |
| Weighted Rv (mixed open)   | 0.00                                |
| % Mixed Open               | 0%                                  |
| Managed Turf Cover (acres) | 39.69                               |
| Weighted Rv (turf)         | 0.21                                |
| % Managed Turf             | 58%                                 |
| Impervious Cover (acres)   | 28.70                               |
| Rv (Impervious)            | 0.95                                |
| % Impervious               | 42%                                 |
| Site Area (acres)          | 68.39                               |
| Site Rv                    | 0.52                                |

Constants

Target Rainfall Event (inches)1.00

Target TP Load (lb/acre/yr)0.26

Runoff Coefficients (Rv)

|                  | A Soils | B Soils | C Soils | D Soils |
|------------------|---------|---------|---------|---------|
| Forest           | 0.02    | 0.03    | 0.04    | 0.05    |
| Mixed Open       | 0.08    | 0.11    | 0.13    | 0.15    |
| Managed Turf     | 0.15    | 0.20    | 0.22    | 0.25    |
| Impervious Cover | 0.95    | 0.95    | 0.95    | 0.95    |

STORMWATER QUALITY COMPLIANCE

Site Results (Water Quality Compliance) VRRM 4.1, 2024

| Area Checks                    | D.A. A | D.A. B | D.A. C | D.A. D | D.A. E | AREA CHECK |
|--------------------------------|--------|--------|--------|--------|--------|------------|
| FOREST (sq)                    | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | OK         |
| MIXED OPEN AREA (sq)           | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | OK         |
| MANAGED TURF AREA (sq)         | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | OK         |
| MANAGED TURF AREA TREATED (sq) | 13.56  | 5.56   | 12.77  | 0.00   | 0.00   | OK         |
| IMPERVIOUS COVER (sq)          | 14.31  | 2.30   | 12.39  | 0.00   | 0.00   | OK         |
| IMPERVIOUS COVER TREATED (sq)  | 14.31  | 2.30   | 12.39  | 0.00   | 0.00   | OK         |
| AREA CHECK                     | OK     | OK     | OK     | OK     | OK     |            |

Site Treatment Volume (ft<sup>3</sup>)129.194

Runoff Reduction Volume and TP By Drainage Area

|                                                     | D.A. A | D.A. B | D.A. C | D.A. D | D.A. E | TOTAL  |
|-----------------------------------------------------|--------|--------|--------|--------|--------|--------|
| RUNOFF REDUCTION VOLUME ACHIEVED (ft <sup>3</sup> ) | 0      | 0      | 0      | 0      | 0      | 0      |
| TP LOAD AVAILABLE FOR REMOVAL (lb/yr)               | 22.57  | 5.54   | 20.37  | 0.00   | 0.00   | 48.48  |
| TP LOAD REDUCTION ACHIEVED (lb/yr)                  | 16.93  | 4.46   | 15.78  | 0.00   | 0.00   | 36.99  |
| TP LOAD REMAINING (lb/yr)                           | 5.64   | 1.07   | 4.59   | 0.00   | 0.00   | 11.27  |
| NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)            | 114.40 | 17.95  | 101.45 | 0.00   | 0.00   | 244.85 |

Total Phosphorus

|                                              |       |
|----------------------------------------------|-------|
| FINAL POST-DEVELOPMENT TP LOAD (lb/yr)       | 53.21 |
| TP LOAD REDUCTION REQUIRED (lb/yr)           | 35.03 |
| TP LOAD REDUCTION ACHIEVED (lb/yr)           | 36.99 |
| TP LOAD REMAINING (lb/yr)                    | 16.15 |
| REMAINING TP LOAD REDUCTION REQUIRED (lb/yr) | 0.00  |

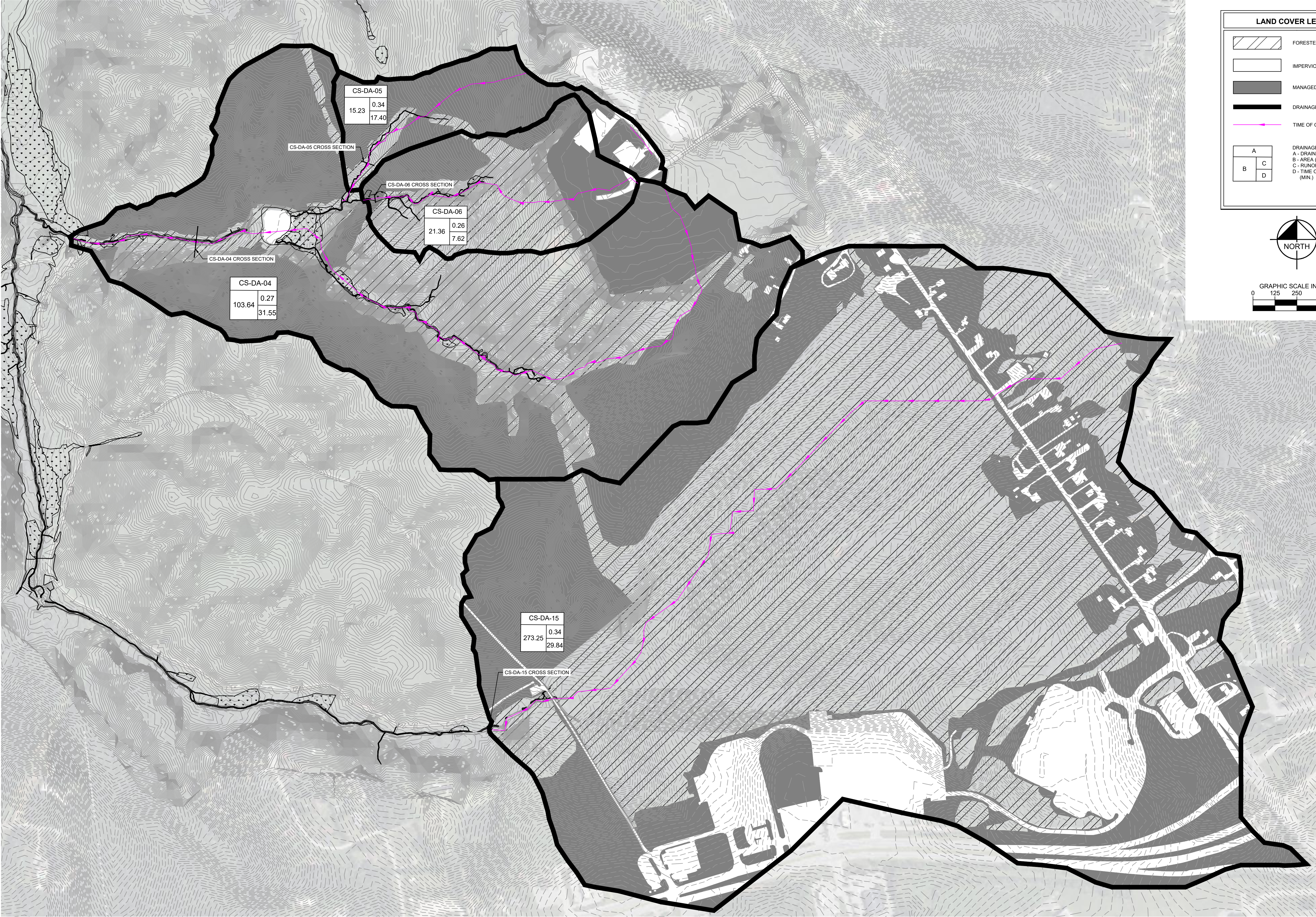
Total Nitrogen (For Information Purposes)

|                                                  |        |
|--------------------------------------------------|--------|
| POST-DEVELOPMENT LOAD (lb/yr)                    | 654.00 |
| NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)         | 244.85 |
| REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr) | 409.15 |

\*\* TARGET TP REDUCTION EXCEEDED BY 1.69 lb/YEAR \*\*



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**LAND COVER LEGEND**

|  |                        |
|--|------------------------|
|  | FORESTED COVER         |
|  | IMPERVIOUS COVER       |
|  | MANAGED TURF           |
|  | DRAINAGE AREA BOUNDARY |
|  | TIME OF CONCENTRATION  |

|   |                     |                                 |
|---|---------------------|---------------------------------|
| A | DRAINAGE AREA LABEL |                                 |
| B | C                   | A - DRAINAGE AREA NAME          |
|   | D                   | B - AREA (AC)                   |
|   |                     | C - RUNOFF COEFFICIENT          |
|   |                     | D - TIME OF CONCENTRATION (MIN) |

**GRAPHIC SCALE IN FEET**

0 125 250 500

**NORTH**

**COMMONWEALTH OF VIRGINIA**

**JOSH M MACDONALD**

Lic. No. 0402057995

11/14/2025

**PROFESSIONAL ENGINEER**

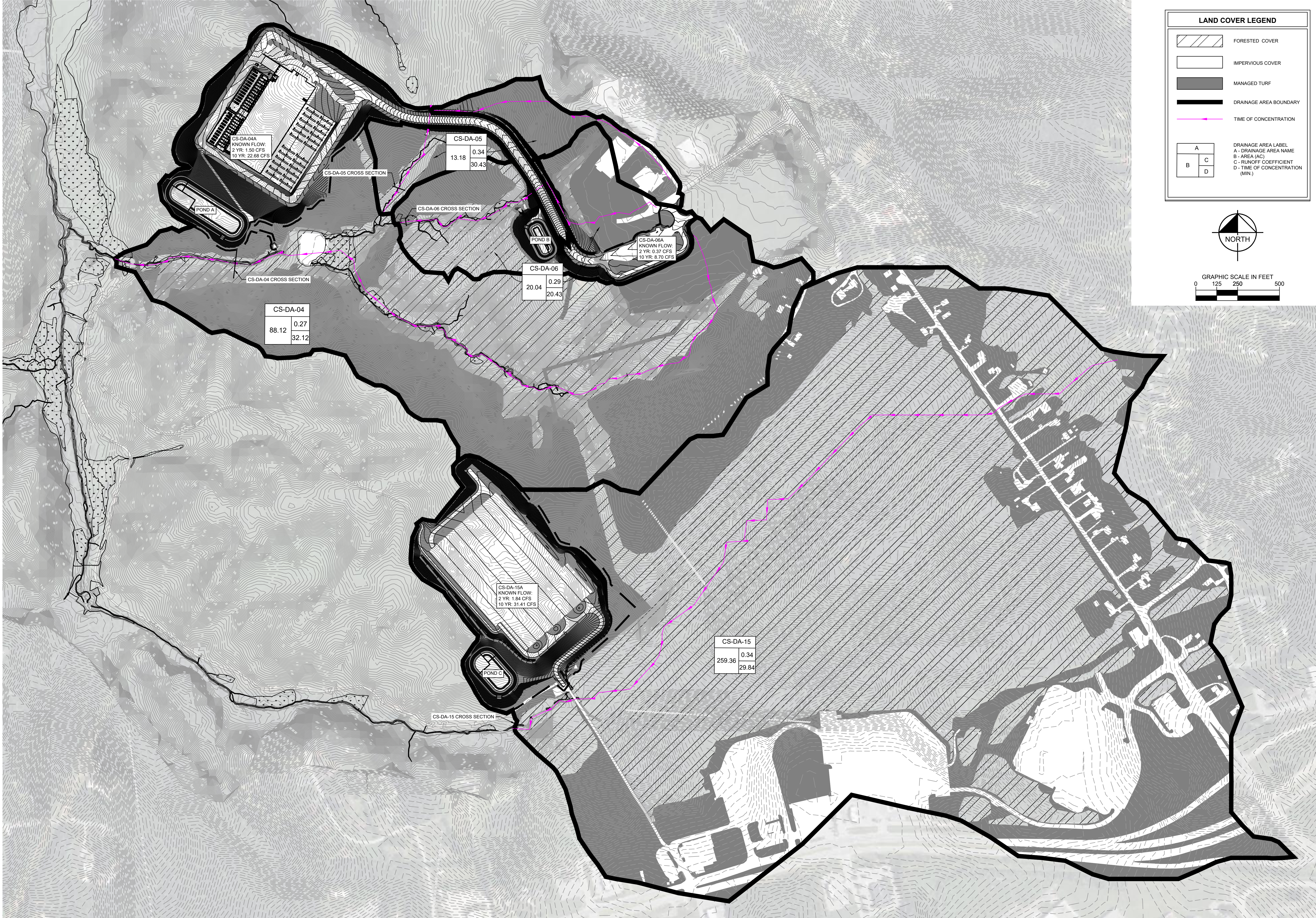
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| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

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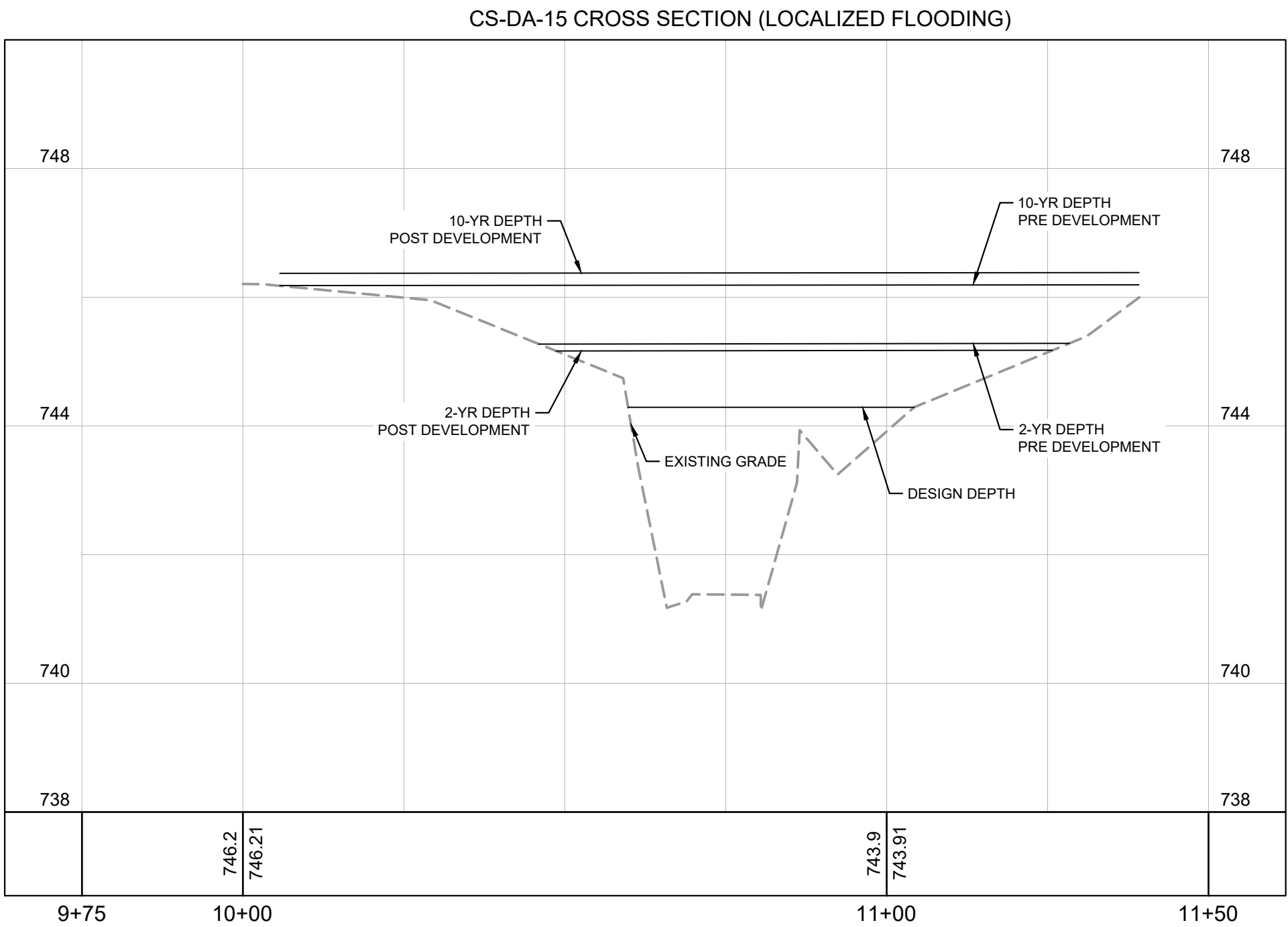
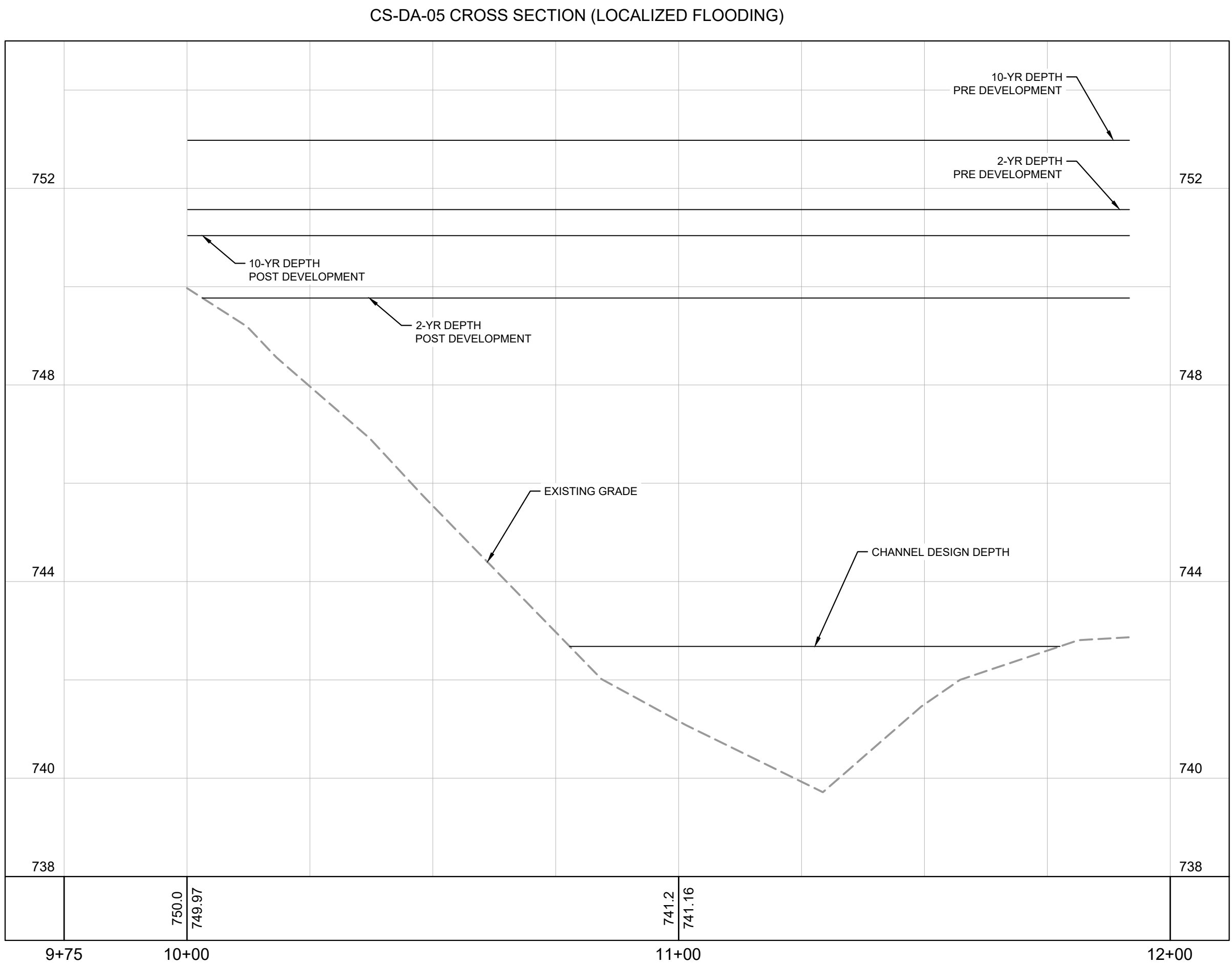
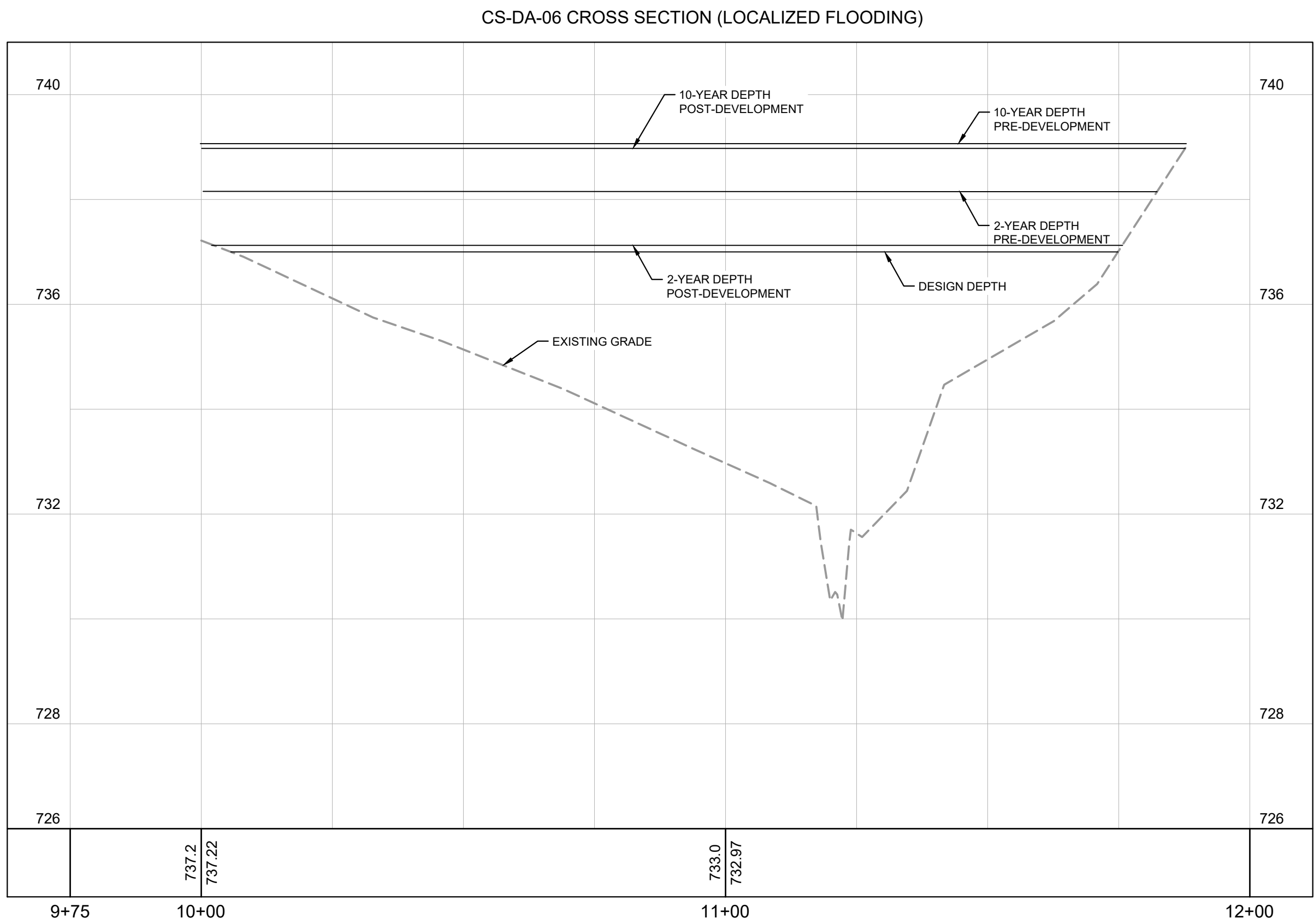
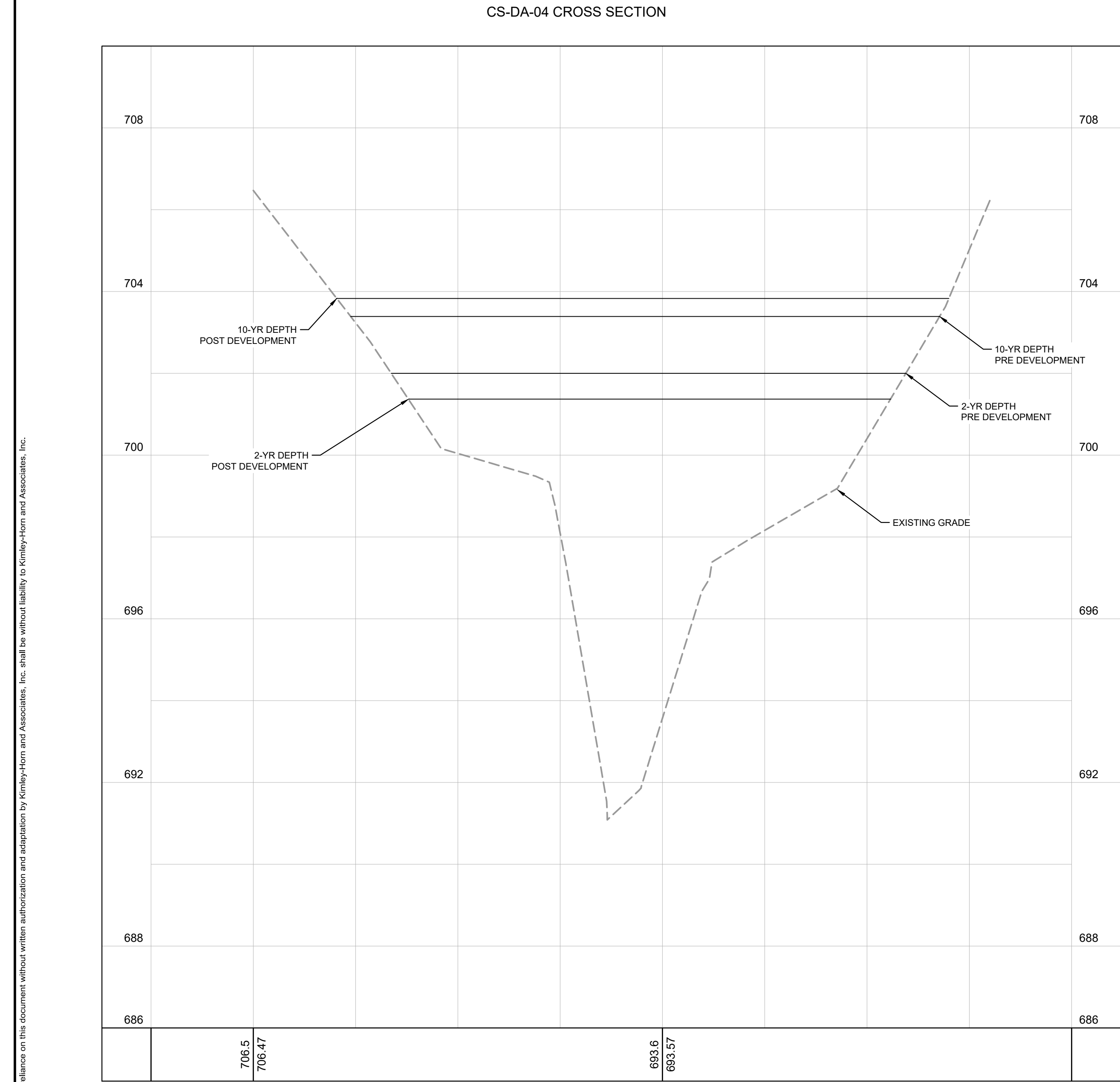


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|                                                                                                                                                                  |                                             |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------|
| <b>PROJECT HERCULES</b>                                                                                                                                          | <b>POST DEVELOPMENT DOWNSTREAM ANALYSIS</b> | <b>VA</b>                |
| <b>CG-207</b>                                                                                                                                                    | <b>APPOMATTOX COUNTY</b>                    | <b>VA</b>                |
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| <b>COMMONWEALTH OF VIRGINIA</b><br><b>JOSH M MACDONALD</b><br>Lic. No. 0402057995<br>11/14/2025<br><b>PROFESSIONAL ENGINEER</b>                                  |                                             |                          |
| <b>KHA PROJECT</b><br>113706001                                                                                                                                  | <b>DATE</b><br>11/14/2025                   | <b>SCALE</b><br>AS SHOWN |
| <b>DESIGNED BY</b><br>ECS                                                                                                                                        | <b>DRAWN BY</b><br>ECS                      | <b>CHECKED BY</b><br>DW  |





| PRE DEVELOPMENT DOWNSTREAM DITCH CALCULATIONS |                     |                   |         |               |       |                      |                       |                    |                     |             |             |                 |             |      |                 |               |                    |                |                                  |                                   |
|-----------------------------------------------|---------------------|-------------------|---------|---------------|-------|----------------------|-----------------------|--------------------|---------------------|-------------|-------------|-----------------|-------------|------|-----------------|---------------|--------------------|----------------|----------------------------------|-----------------------------------|
| DITCH SECTION ID                              | DRAINAGE AREA ACRES | APPROX. LENGTH FT | C VALUE | TIME OF CONC. |       | I <sub>2</sub> IN/HR | I <sub>10</sub> IN/HR | Q <sub>2</sub> CFS | Q <sub>10</sub> CFS | SLOPE FT/FT | MANNING'S N | BOTTOM WIDTH FT | SIDE SLOPES |      | DESIGN DEPTH FT | 2-YR DEPTH FT | 2-YR VELOCITY FT/S | 10-YR DEPTH FT | Added On-Site Q <sub>2</sub> CFS | Added On-Site Q <sub>10</sub> CFS |
|                                               |                     |                   |         | MIN           | IN/HR |                      |                       |                    |                     |             |             |                 | L FT        | R FT |                 |               |                    |                |                                  |                                   |
| CS-DA-04                                      | 103.64              | 4958              | 0.27    | 31.55         | 2.20  | 3.03                 | 61.45                 | 84.60              | 0.05                | 0.1         | 0.0         | 0.15            | 0.19        | 14.8 | 10.95           | 3.02          | 12.34              |                |                                  |                                   |
| CS-DA-05                                      | 15.23               | 2319              | 0.34    | 17.40         | 3.07  | 4.15                 | 15.70                 | 21.18              | 0.06                | 0.1         | 0.0         | 0.07            | 0.05        | 2.7  | 11.86           | 1.86          | 13.27              |                |                                  |                                   |
| CS-DA-06                                      | 21.36               | 1732              | 0.26    | 7.62          | 4.35  | 5.76                 | 24.07                 | 31.85              | 0.06                | 0.1         | 0.0         | 0.17            | 0.11        | 7.0  | 8.19            | 2.56          | 9.10               |                |                                  |                                   |
| CS-DA-15                                      | 273.24              | 4776              | 0.34    | 29.84         | 2.28  | 3.13                 | 212.61                | 292.06             | 0.01                | 0.1         | 18.0        | 0.12            | 0.16        | 3.0  | 3.89            | 2.95          | 4.80               |                |                                  |                                   |

| POST DEVELOPMENT DOWNSTREAM DITCH CALCULATIONS |                     |                   |         |               |       |                      |                       |                    |                     |             |             |                 |             |      |                 |               |                    |                |                                  |                                   |
|------------------------------------------------|---------------------|-------------------|---------|---------------|-------|----------------------|-----------------------|--------------------|---------------------|-------------|-------------|-----------------|-------------|------|-----------------|---------------|--------------------|----------------|----------------------------------|-----------------------------------|
| DITCH SECTION ID                               | DRAINAGE AREA ACRES | APPROX. LENGTH FT | C VALUE | TIME OF CONC. |       | I <sub>2</sub> IN/HR | I <sub>10</sub> IN/HR | Q <sub>2</sub> CFS | Q <sub>10</sub> CFS | SLOPE FT/FT | MANNING'S N | BOTTOM WIDTH FT | SIDE SLOPES |      | DESIGN DEPTH FT | 2-YR DEPTH FT | 2-YR VELOCITY FT/S | 10-YR DEPTH FT | Added On-Site Q <sub>2</sub> CFS | Added On-Site Q <sub>10</sub> CFS |
|                                                |                     |                   |         | MIN           | IN/HR |                      |                       |                    |                     |             |             |                 | L FT        | R FT |                 |               |                    |                |                                  |                                   |
| CS-DA-04                                       | 88.12               | 4821              | 0.27    | 32.13         | 2.18  | 3.00                 | 52.45                 | 92.86              | 0.05                | 0.1         | 0.0         | 0.15            | 0.19        | 14.8 | 10.32           | 2.90          | 12.78              | 1.50           | 22.68                            |                                   |
| CS-DA-05                                       | 13.18               | 2319              | 0.34    | 30.43         | 2.25  | 3.09                 | 10.20                 | 14.02              | 0.06                | 0.1         | 0.0         | 0.07            | 0.05        | 2.7  | 10.06           | 1.68          | 11.33              |                |                                  |                                   |
| CS-DA-06                                       | 20.04               | 1883              | 0.29    | 20.43         | 2.83  | 3.83                 | 16.84                 | 31.03              | 0.06                | 0.1         | 0.0         | 0.17            | 0.11        | 7.0  | 7.16            | 2.34          | 9.01               | 0.37           | 8.70                             |                                   |
| CS-DA-15                                       | 259.36              | 1713              | 0.34    | 29.84         | 2.28  | 3.13                 | 204.64                | 309.99             | 0.01                | 0.1         | 18.0        | 0.12            | 0.16        | 3.0  | 3.79            | 2.92          | 4.99               | 1.84           | 31.41                            |                                   |

Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CG-208 DOWNSTREAM ANALYSIS CROSS SECTIONS November 06, 2025 01:47:20pm  
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KHA PROJECT 113706001  
DATE 11/14/2025  
SCALE AS SHOWN  
DESIGNED BY ECS  
DRAWN BY ECS  
CHECKED BY DW

DOWNSTREAM ANALYSIS CROSS SECTIONS

PROJECT HERCULES

APPOMATTOX COUNTY VA

SHEET NUMBER CG-208



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CG-209 STORMWATER QUANTITY PLAN November 06, 2025 01:47:39pm  
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STORMWATER QUANTITY NARRATIVE

THE ANALYSIS LIMITS FOR STORMWATER QUANTITY COMPLIANCE AT EACH POINT OF ANALYSIS (POA) IS DEFINED BY THE LIMITS OF DISTURBANCE, WITH THE EXCEPTION OF LINEAR TEMPORARY WORKSPACE IMPROVEMENTS SUCH AS PERIMETER FENCING AND UTILITIES. IN THESE INSTANCES, IF THE EXISTING LAND COVER IS PASTURE AND WILL BE CONVERTED TO MANAGED TURF AFTER THE PROPOSED IMPROVEMENTS, THE AREA IS EXCLUDED FROM THE ANALYSIS LIMITS. DRAINAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE WHICH DRAIN TO A POA ARE INCLUDED WITHIN THE ANALYSIS LIMITS. LINEAR IMPROVEMENTS IN WHICH THE EXISTING LAND COVER IS FORESTED WILL BE CONVERTED TO BRUSH AFTER THE PROPOSED IMPROVEMENTS, SATISFYING SHEET FLOW REQUIREMENTS. THE DOWNSTREAM OFFSITE ANALYSIS TO THE LIMITS OF ANALYSIS FOR CHANNEL AND FLOOD PROTECTION FOR EACH POA IS PROVIDED IN **APPENDIX S**. THE TABLE TO THE RIGHT DEFINES THE WATER QUANTITY COMPLIANCE FOR EACH DRAINAGE AREA ON THE SITE AND THE COMPLIANCE METHODS DESCRIBED IN 9VAC25-875-600. DRAINAGE AREAS WITH "N/A" FOR CHANNEL AND FLOOD PROTECTION CRITERIA ARE REROUTED TO A DIFFERENT DRAINAGE AREA WITH THE PROPOSED IMPROVEMENTS.

| POA WATER QUANTITY CALCULATIONS                                                                                                                             |                                                                                                                                                                                                                                      |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| DA-01                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 1.51                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 8.94                                                                                                                                                                                                                                 | 0.00                           | 8.94                              | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.135                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-03                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 2.79                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 13.75                                                                                                                                                                                                                                | 0.00                           | 13.75                             | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.155                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-05                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 3.41                                                                                                                                                                                                                                 | 6.49                           | 10.10                             | 7.01                          |
| 10                                                                                                                                                          | 12.65                                                                                                                                                                                                                                | 19.20                          | 31.85                             | 20.63                         |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.213                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.161                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-07                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 0.42                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 4.07                                                                                                                                                                                                                                 | 0.00                           | 4.07                              | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.063                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-02                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 0.98                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 5.41                                                                                                                                                                                                                                 | 0.00                           | 5.41                              | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.064                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-04                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | Yes, routed through permanent pond WET POND A                                                                                                                                                                                        |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 3.85                                                                                                                                                                                                                                 | 0.00                           | 0.32                              | 0.32                          |
| 10                                                                                                                                                          | 23.32                                                                                                                                                                                                                                | 0.00                           | 23.32                             | 22.68                         |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.380                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| V <sub>post-on-site</sub> =                                                                                                                                 | 3.695                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-06                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | Yes, routed through permanent pond WET POND B                                                                                                                                                                                        |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 0.29                                                                                                                                                                                                                                 | 1.88                           | 1.91                              | 1.91                          |
| 10                                                                                                                                                          | 5.92                                                                                                                                                                                                                                 | 9.98                           | 15.90                             | 15.14                         |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.086                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.756                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-08                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 0.01                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 0.08                                                                                                                                                                                                                                 | 0.00                           | 0.08                              | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.001                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

DRAINAGE AREA COMPLIANCE METHOD SUMMARY

| DRAINAGE AREA LABEL                                                                                                                                  |                          |                      |                    |                      |                      |                  | ADEQUATE OUTFALL |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------|--------------------|----------------------|----------------------|------------------|------------------|
|                                                                                                                                                      | CHANNEL PROTECTION       |                      | FLOOD PROTECTION   |                      |                      | SHEET FLOW       |                  |
|                                                                                                                                                      | 9VAC25-875-600.B.1.a     | 9VAC25-875-600.B.3.a | 9VAC25-875-600.C.1 | 9VAC25-875-600.C.2.b | 9VAC25-875-600.C.3.c | 9VAC25-875-600.D |                  |
| DA-01                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-02                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-03                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-04                                                                                                                                                |                          | X                    | X                  |                      | X                    |                  | Stream/Wetland   |
| DA-05                                                                                                                                                |                          | X                    |                    | X                    |                      |                  | Stream/Wetland   |
| DA-06                                                                                                                                                |                          | X                    |                    | X                    |                      |                  | Stream/Wetland   |
| DA-07                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-08                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-09                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-10                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-11                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-12                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-13                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-14                                                                                                                                                | N/A                      | N/A                  | N/A                | N/A                  | N/A                  |                  | N/A              |
| DA-15                                                                                                                                                |                          | X                    |                    | X                    |                      |                  | Stream/Wetland   |
| FENCE-01                                                                                                                                             |                          |                      |                    |                      |                      | X                | Stream/Wetland   |
| FENCE-02                                                                                                                                             |                          |                      |                    |                      |                      | X                | Stream/Wetland   |
| FENCE-03                                                                                                                                             |                          |                      |                    |                      |                      | X                | Stream/Wetland   |
| FENCE-04                                                                                                                                             |                          |                      |                    |                      |                      | X                | Stream/Wetland   |
| FENCE-05                                                                                                                                             |                          |                      |                    |                      |                      | X                | Stream/Wetland   |
| TEMP-01<br>THROUGH TEMP-08                                                                                                                           | TEMPORARY WORKSPACE ONLY |                      |                    |                      |                      |                  |                  |
| **NOTE: DRAINAGE AREAS WITH "N/A" FOR CHANNEL AND FLOOD PROTECTION CRITERIA ARE REROUTED TO A DIFFERENT DRAINAGE AREA WITH THE PROPOSED IMPROVEMENTS |                          |                      |                    |                      |                      |                  |                  |

| DA-09                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 0.33                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 2.37                                                                                                                                                                                                                                 | 0.00                           | 2.37                              | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.033                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-11                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 2.26                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 14.66                                                                                                                                                                                                                                | 0.00                           | 14.66                             | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.217                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-13                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 4.01                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 15.78                                                                                                                                                                                                                                | 0.00                           | 15.78                             | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.272                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

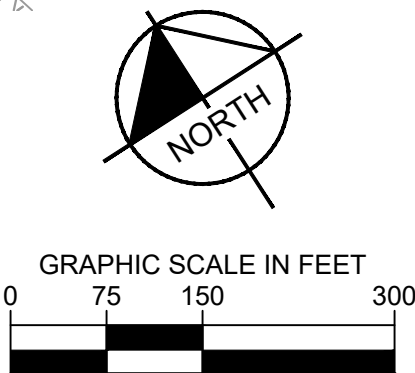
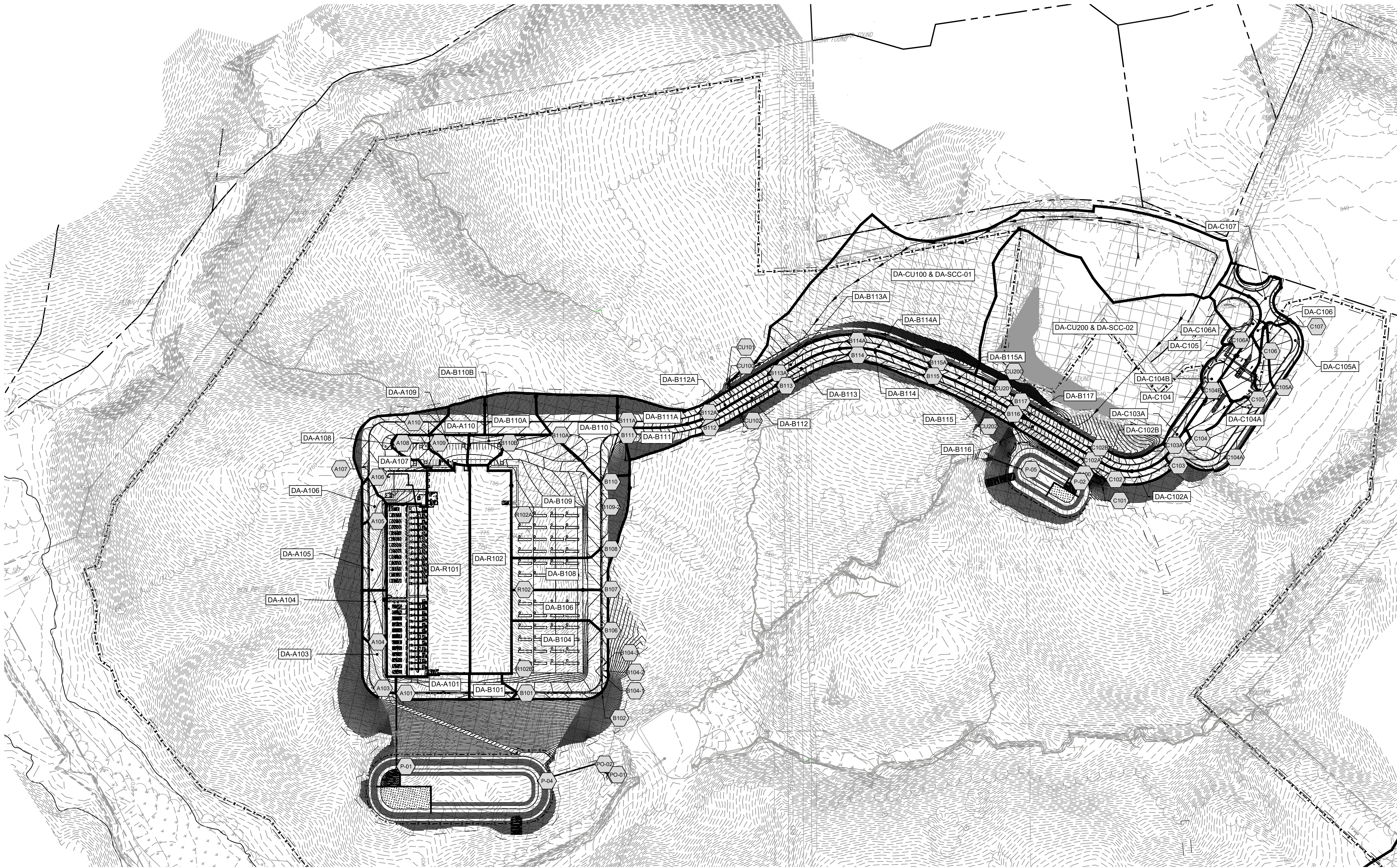
| DA-15                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | Yes, routed through permanent pond WET POND C                                                                                                                                                                                        |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 4.17                                                                                                                                                                                                                                 | 1.48                           | 1.83                              | 1.80                          |
| 10                                                                                                                                                          | 24.31                                                                                                                                                                                                                                | 12.34                          | 36.65                             | 33.93                         |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.344                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 3.322                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-10                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                   |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                   |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                   |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)* | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 0.51                                                                                                                                                                                                                                 | 0.00                           | N/A                               | 0.00                          |
| 10                                                                                                                                                          | 3.89                                                                                                                                                                                                                                 | 0.00                           | 3.89                              | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                   |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> = $\{I.F. \times (Q_{pre-on-site} \times V_{pre-on-site}) / V_{post-on-site}\} + Q_{pre-on-site}$                                                                                                        |                                |                                   |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.044                                                                                                                                                                                                                                | AF                             |                                   |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             |                                   | From HydroCAD                 |
| I.F.=                                                                                                                                                       | 0.8                                                                                                                                                                                                                                  |                                |                                   | 0.8 for sites>1 acre          |

| DA-12                                                                                                                                                       | Site Outfall Peak Flow Comparison, Q <sub>peak</sub> (cfs)                                                                                                                                                                           |                                |                                                                                                                             |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Compliance Method                                                                                                                                           | For Channel Protection, the Energy Balance has been met per 9VAC25-870-600.B.3a. For flood protection, post development 10yr-24 hr peak flow rate has been kept below pre development, therefore 9VAC25-870-600.C.2.b. is satisfied. |                                |                                                                                                                             |                               |
|                                                                                                                                                             |                                                                                                                                                                                                                                      |                                |                                                                                                                             |                               |
| Permanent Feature?                                                                                                                                          | No                                                                                                                                                                                                                                   |                                |                                                                                                                             |                               |
| Storm Frequency (Years)                                                                                                                                     | Pre-development On-site (cfs)                                                                                                                                                                                                        | Pre-development Off-site (cfs) | Post-development Allowable (cfs)*                                                                                           | Post-development Actual (cfs) |
| 1                                                                                                                                                           | 1.68                                                                                                                                                                                                                                 | 0.00                           | N/A                                                                                                                         | 0.00                          |
| 10                                                                                                                                                          | 5.61                                                                                                                                                                                                                                 | 0.00                           | 5.61                                                                                                                        | 0.00                          |
| *Calculated using Energy Balance Equation - offsite area is not included in the improvement factor calculation, but added in to generate the allowable flow |                                                                                                                                                                                                                                      |                                |                                                                                                                             |                               |
| Energy Balance Equation:                                                                                                                                    | Q <sub>post allowable</sub> =                                                                                                                                                                                                        |                                | {[I.F. x (Q <sub>pre-on-site</sub> x V <sub>pre-on-site</sub> ) / V <sub>post-on-site</sub> ] + Q <sub>pre-off-site</sub> } |                               |
| V <sub>pre-on-site</sub> =                                                                                                                                  | 0.081                                                                                                                                                                                                                                | AF                             | From HydroCAD                                                                                                               |                               |
| V <sub>post-on-site</sub> =                                                                                                                                 | 0.000                                                                                                                                                                                                                                | AF                             | From HydroCAD                                                                                                               |                               |
| I.F. =                                                                                                                                                      | 0.8                                                                                                                                                                                                                                  |                                | 0.8 for sites>1 acre                                                                                                        |                               |



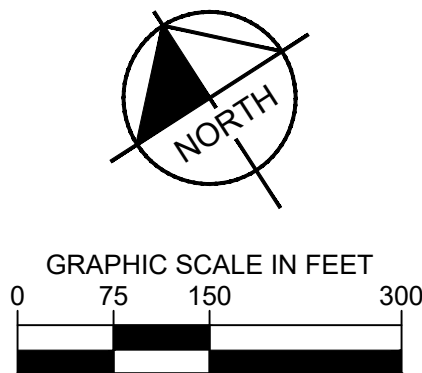
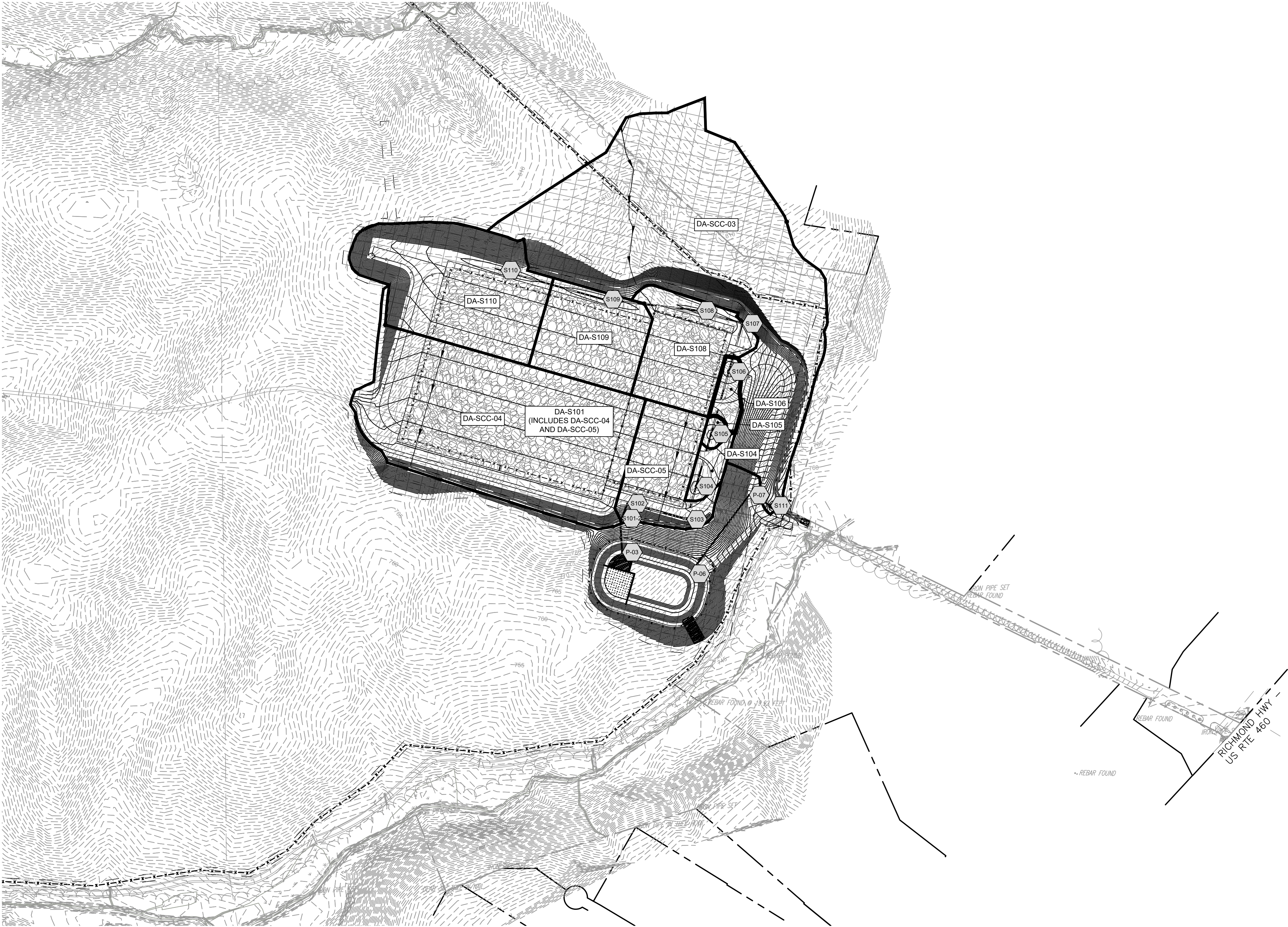
Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CG-210 DRAINAGE AREA MAP November 05, 2025 04:42:08pm  
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|                                                                                                                                                                  |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------|
| PROJECT HERCULES                                                                                                                                                 | VA                 | APPOMATTOX COUNTY |
| SHEET NUMBER<br>CG-210                                                                                                                                           |                    |                   |
| DRAINAGE AREA MAP                                                                                                                                                |                    |                   |
| KHA PROJECT<br>113706001                                                                                                                                         | DATE<br>11/14/2025 | SCALE AS SHOWN    |
| DESIGNED BY<br>STM                                                                                                                                               | STW                | JMM               |
| DRAWN BY<br>STM                                                                                                                                                  |                    |                   |
| CHECKED BY<br>JMM                                                                                                                                                |                    |                   |
|                                                                                                                                                                  |                    |                   |
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| <b>Jacobs</b>                                                                                                                                                    |                    |                   |



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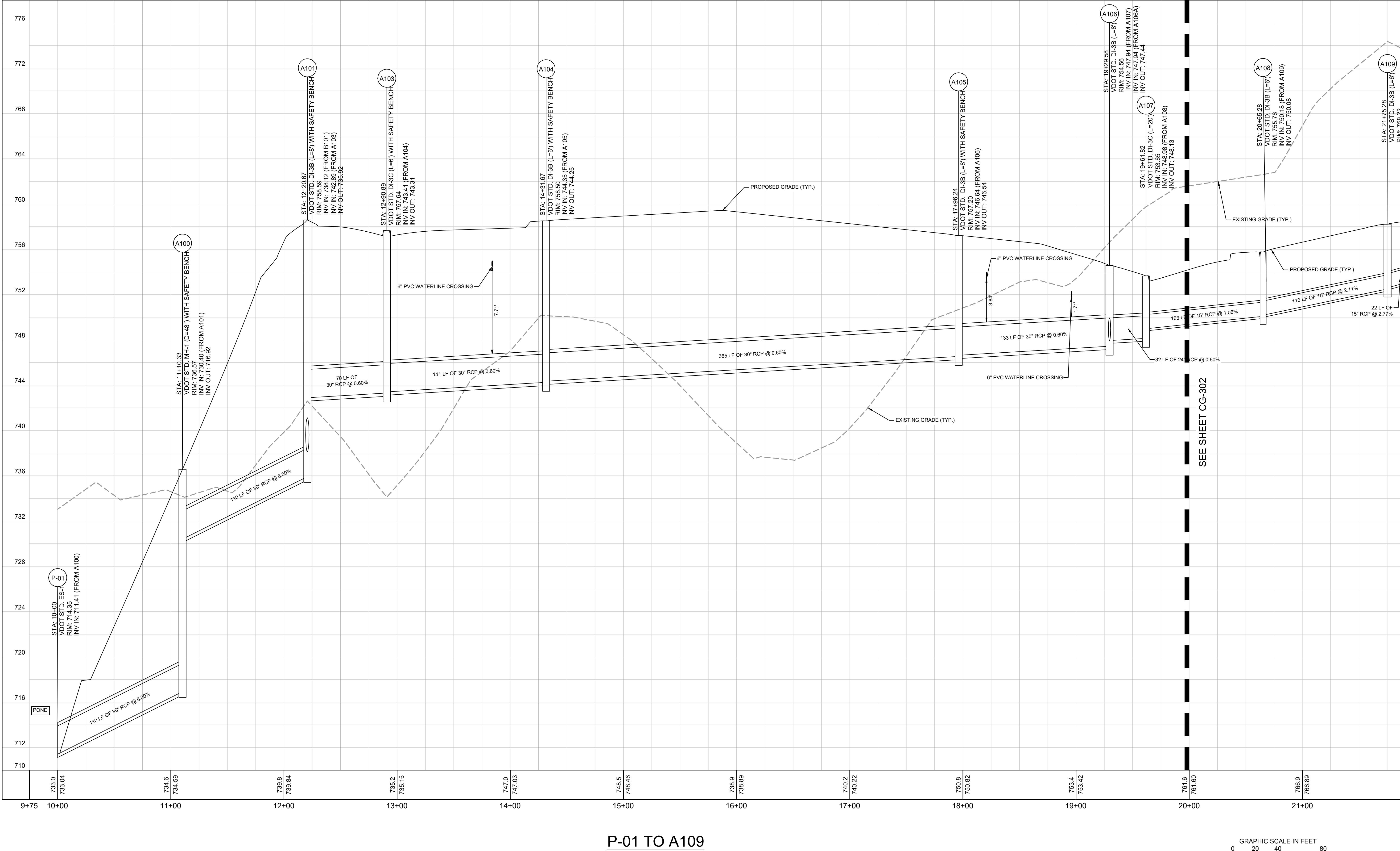


| LAND COVER LEGEND |                        |
|-------------------|------------------------|
|                   | FORESTED COVER         |
|                   | IMPERVIOUS COVER       |
|                   | MANAGED TURF           |
|                   | DRAINAGE AREA CALL OUT |
|                   | DRAINAGE AREA BOUNDARY |

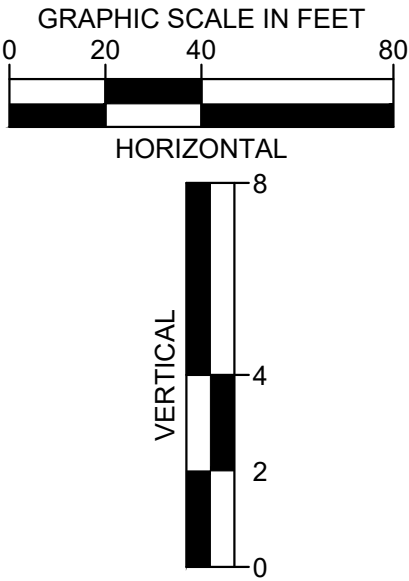
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| PROJECT HERCULES                                                                                                                                                                                                                                                                                          | DRAINAGE AREA MAP |  |             |           |      |            |       |          |             |     |          |     |            |     |
| APPOMATTOX COUNTY                                                                                                                                                                                                                                                                                         | VA                |  |             |           |      |            |       |          |             |     |          |     |            |     |
| SHEET NUMBER<br>CG-211                                                                                                                                                                                                                                                                                    |                   |  |             |           |      |            |       |          |             |     |          |     |            |     |
| <div></div> <div></div> <div><table><tr><td>KHA PROJECT</td><td>113706001</td></tr><tr><td>DATE</td><td>11/14/2025</td></tr><tr><td>SCALE</td><td>AS SHOWN</td></tr><tr><td>DESIGNED BY</td><td>STM</td></tr><tr><td>DRAWN BY</td><td>STM</td></tr><tr><td>CHECKED BY</td><td>JMM</td></tr></table></div> |                   |  | KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
| KHA PROJECT                                                                                                                                                                                                                                                                                               | 113706001         |  |             |           |      |            |       |          |             |     |          |     |            |     |
| DATE                                                                                                                                                                                                                                                                                                      | 11/14/2025        |  |             |           |      |            |       |          |             |     |          |     |            |     |
| SCALE                                                                                                                                                                                                                                                                                                     | AS SHOWN          |  |             |           |      |            |       |          |             |     |          |     |            |     |
| DESIGNED BY                                                                                                                                                                                                                                                                                               | STM               |  |             |           |      |            |       |          |             |     |          |     |            |     |
| DRAWN BY                                                                                                                                                                                                                                                                                                  | STM               |  |             |           |      |            |       |          |             |     |          |     |            |     |
| CHECKED BY                                                                                                                                                                                                                                                                                                | JMM               |  |             |           |      |            |       |          |             |     |          |     |            |     |
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P-01 TO A109



PROJECT HERCULES

CG-301

APPOMATTOX COUNTY

VA

STORMWATER PROFILES

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY  
STM

DRAWN BY  
STM

CHECKED BY  
JMM

PROFESSIONAL ENGINEER

JOSH M MACDONALD

Lic. No. 0402057995

11/14/2025

COMMONWEALTH OF VIRGINIA

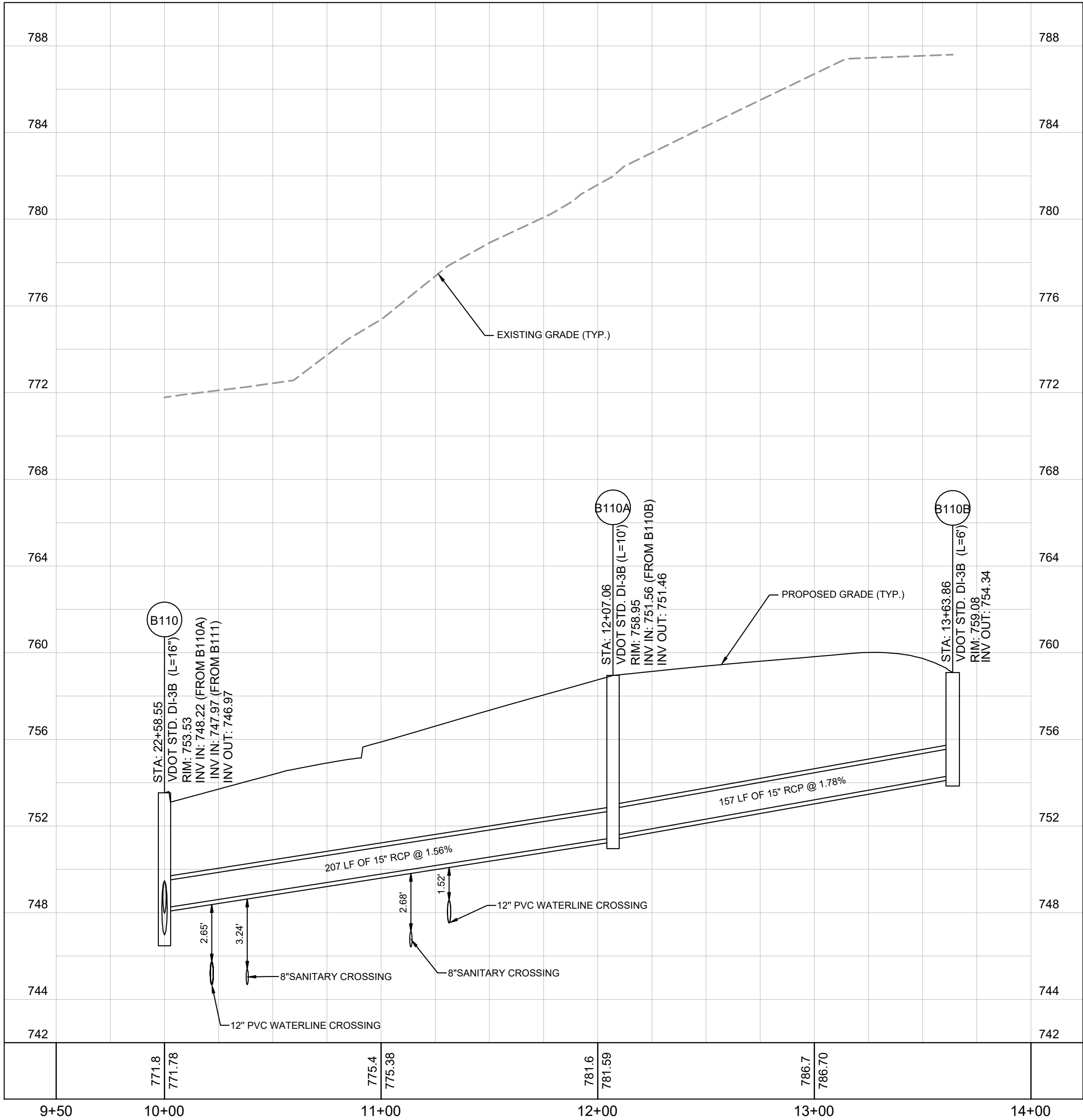
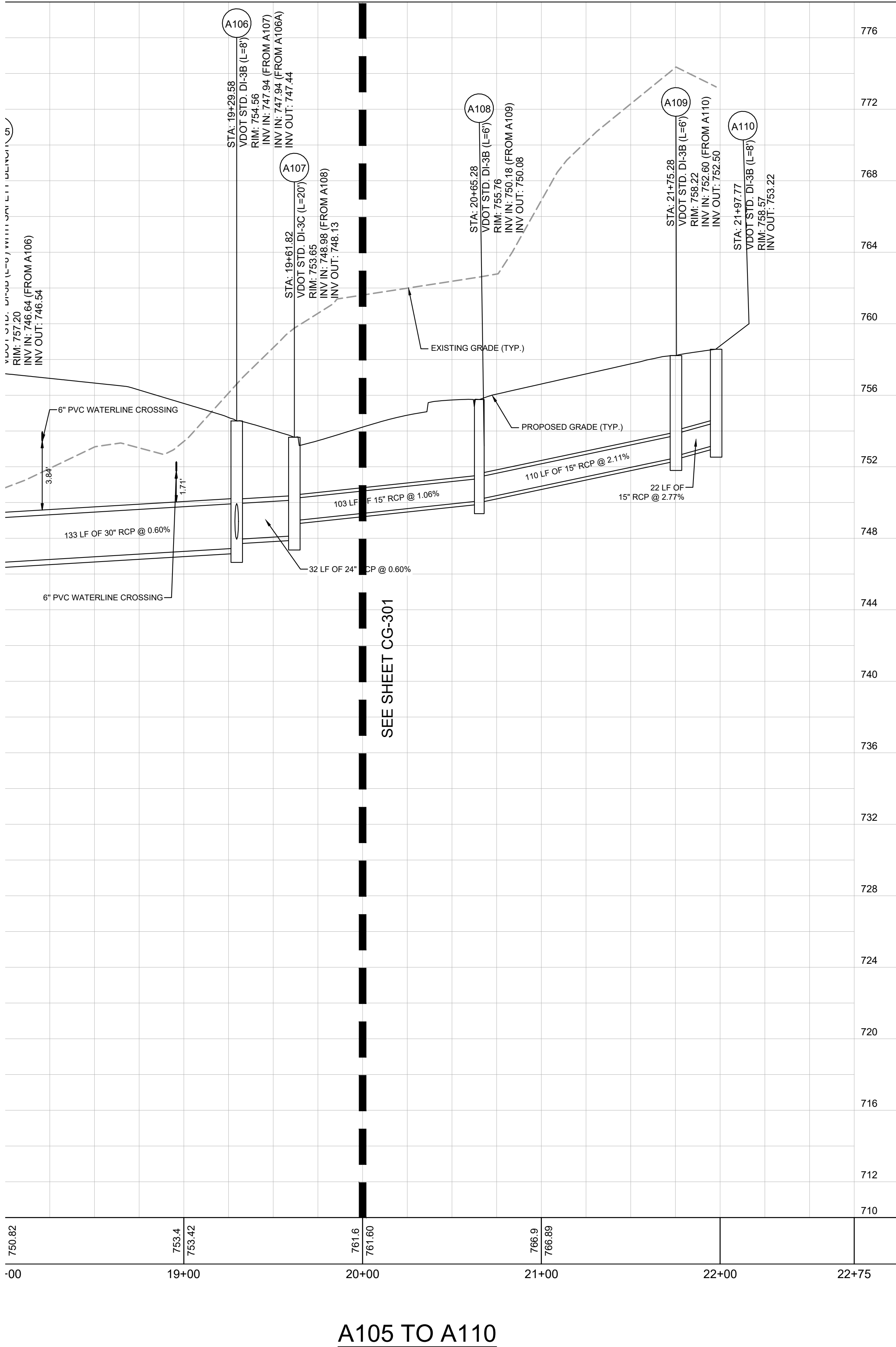
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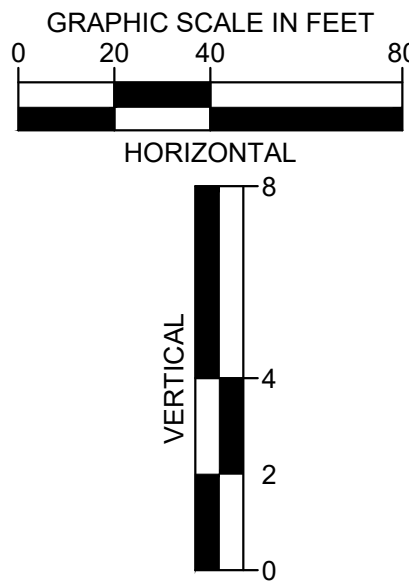
Jacobs



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B110 TO B108B



PROJECT HERCULES

APPOMATTOX COUNTY

VA

STORMWATER PROFILES

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY  
STM

DRAWN BY  
STM

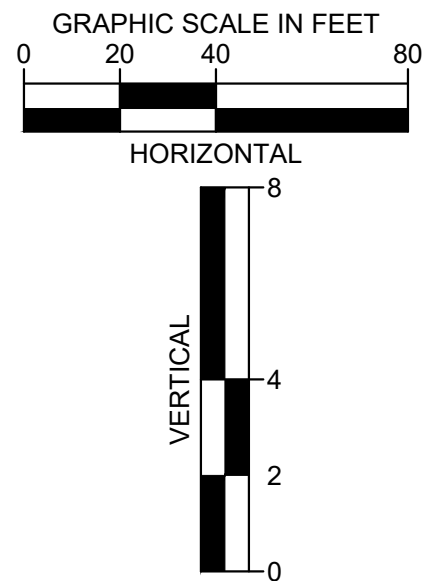
CHECKED BY  
JMM

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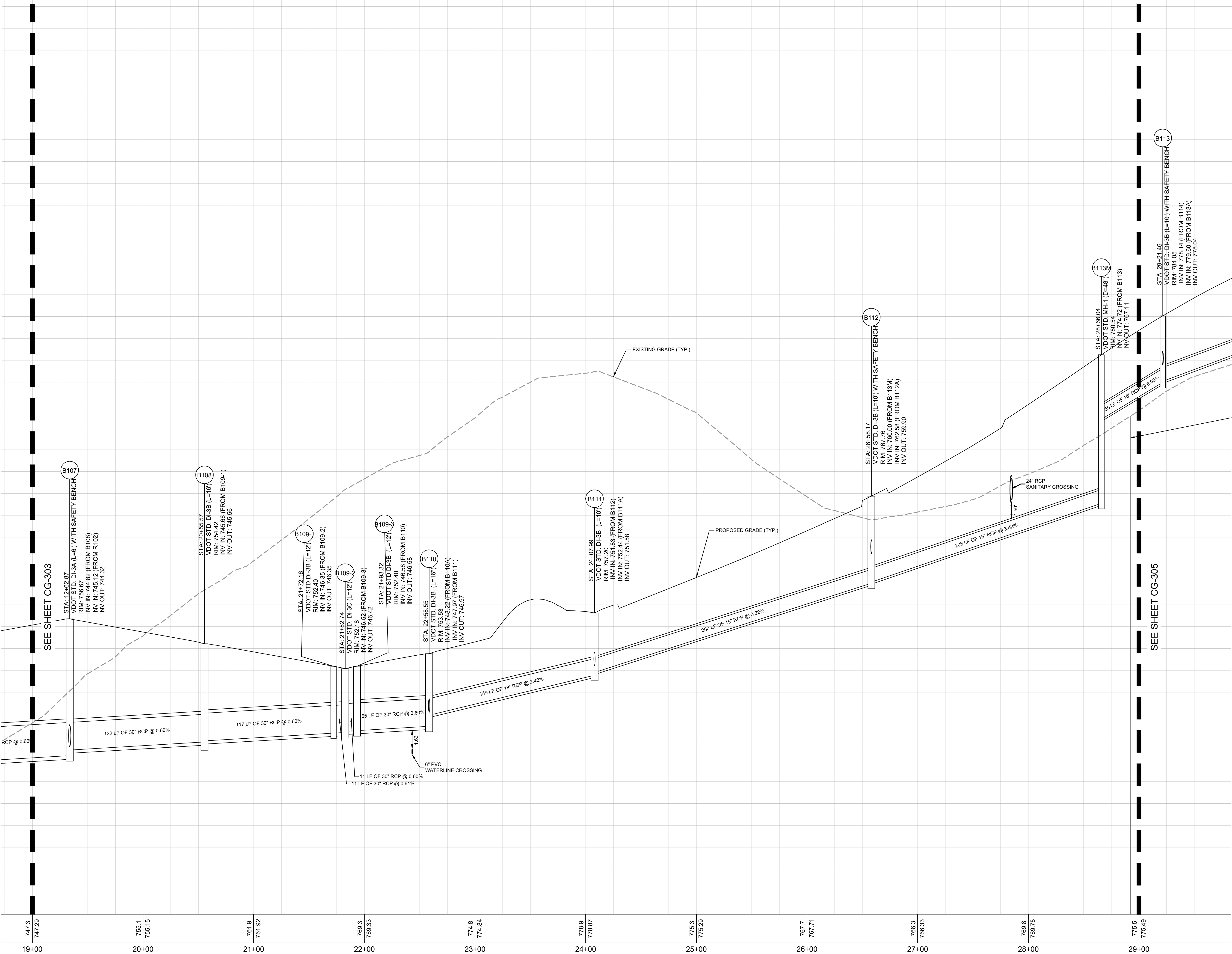
JACOBS



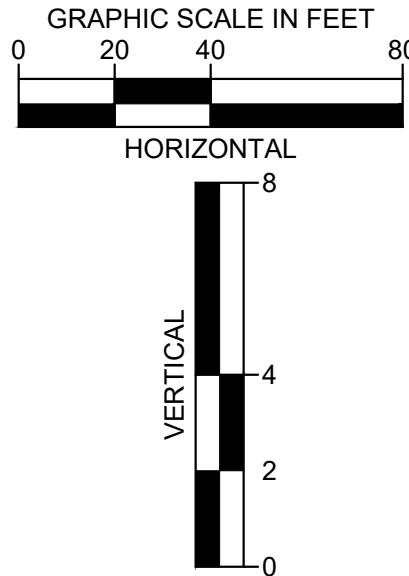




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B107 TO B113



PROJECT HERCULES

APPOMATTOX COUNTY

VA

STORMWATER PROFILES

CG-304

SHEET NUMBER

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COMMONWEALTH OF VIRGINIA

JOSH M MACDONALD

Lic. No. 0402057995

11/14/2025

PROFESSIONAL ENGINEER

KHA PROJECT

113700001

DATE

11/14/2025

SCALE

AS SHOWN

DESIGNED BY

STM

DRAWN BY

STM

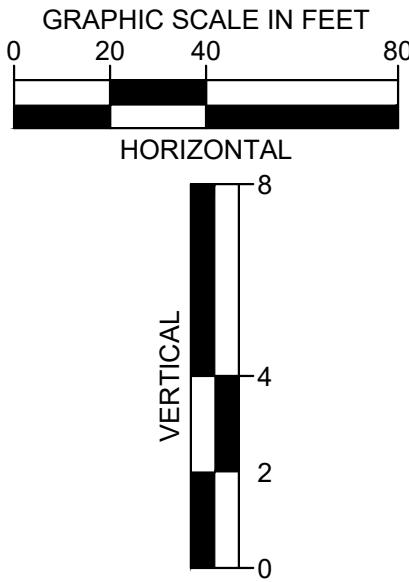
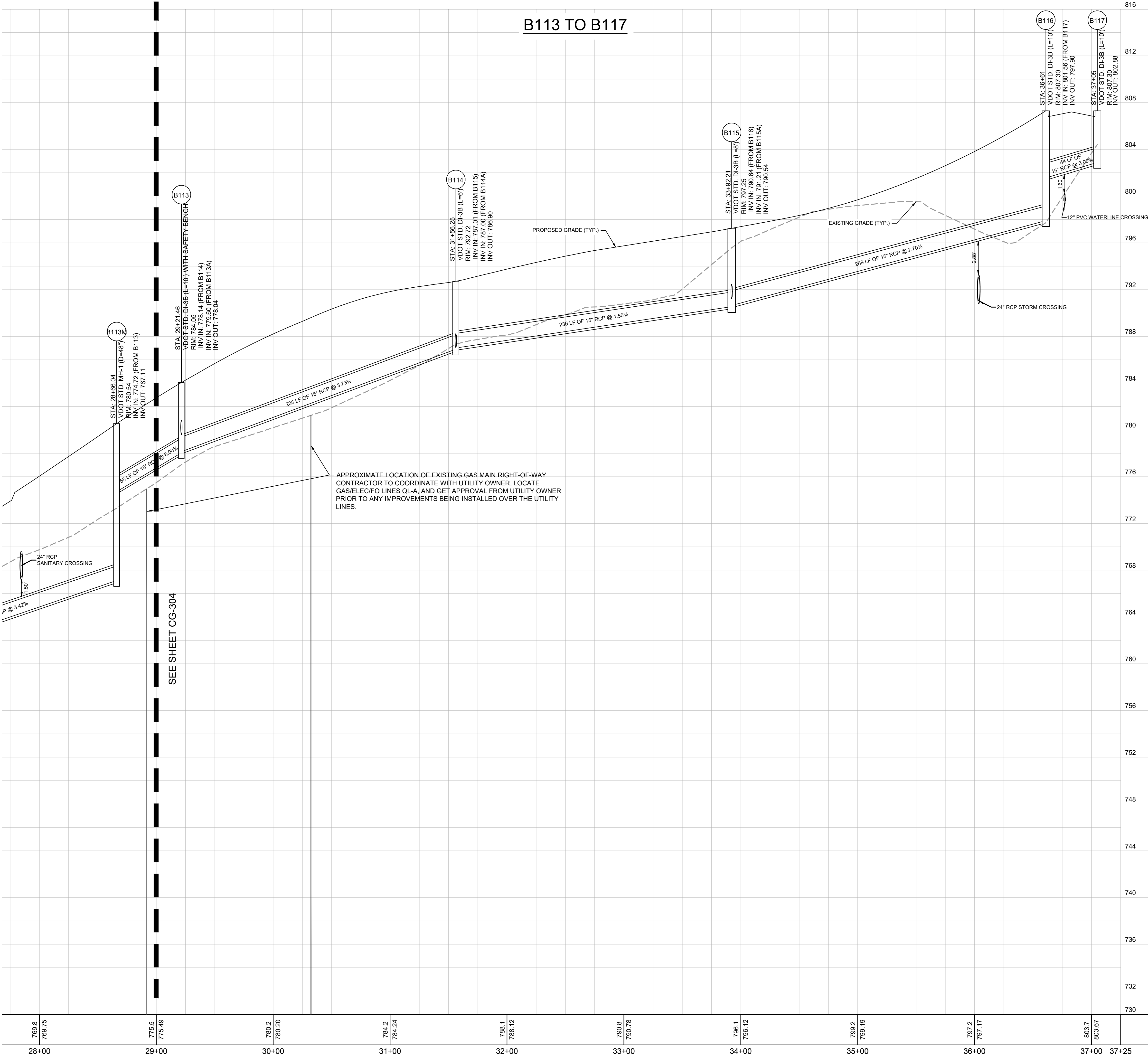
CHECKED BY

JMM

Jacobs



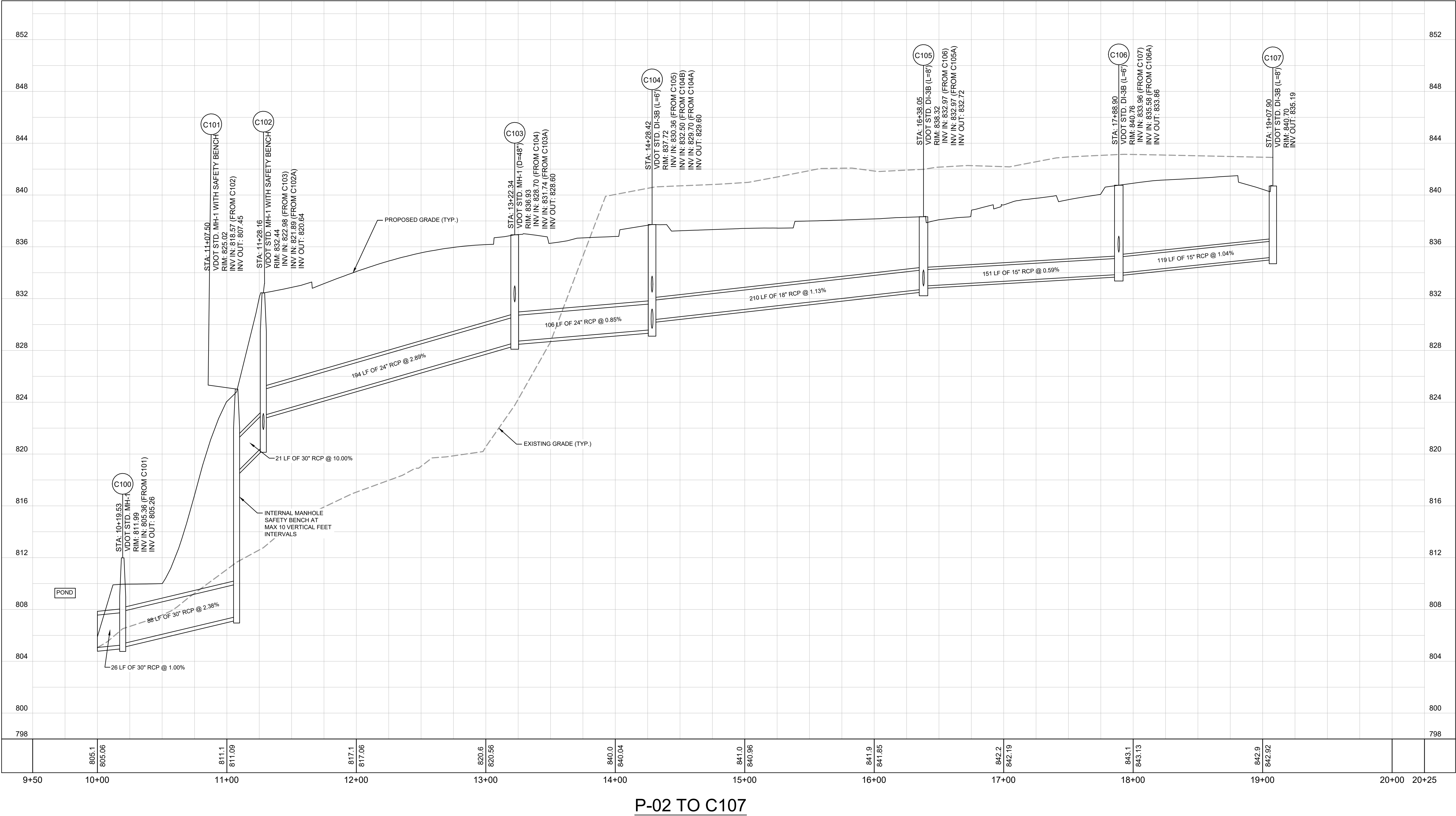
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|------------------------|--|---------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------|--|
| PROJECT HERCULES       |  | STORMWATER PROFILES |  | KHA PROJECT<br>113706001                                                                                                                   |  |
| SHEET NUMBER<br>CG-305 |  | APPOMATTOX COUNTY   |  | DATE<br>11/11/2025                                                                                                                         |  |
| VA                     |  | JMM                 |  | SCALE<br>AS SHOWN                                                                                                                          |  |
|                        |  | STM                 |  | DESIGNED BY<br>STM                                                                                                                         |  |
|                        |  | JMM                 |  | DRAWN BY<br>JMM                                                                                                                            |  |
|                        |  |                     |  | CHECKED BY<br>JMM                                                                                                                          |  |
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PROJECT HERCULES

CG-306

APPOMATTOX COUNTY

VA

STORMWATER PROFILES

|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

COMMONWEALTH OF VIRGINIA

JOSH M MACDONALD

Lic. No. 0402057995

11/14/2025

PROFESSIONAL ENGINEER

Kimley»Horn

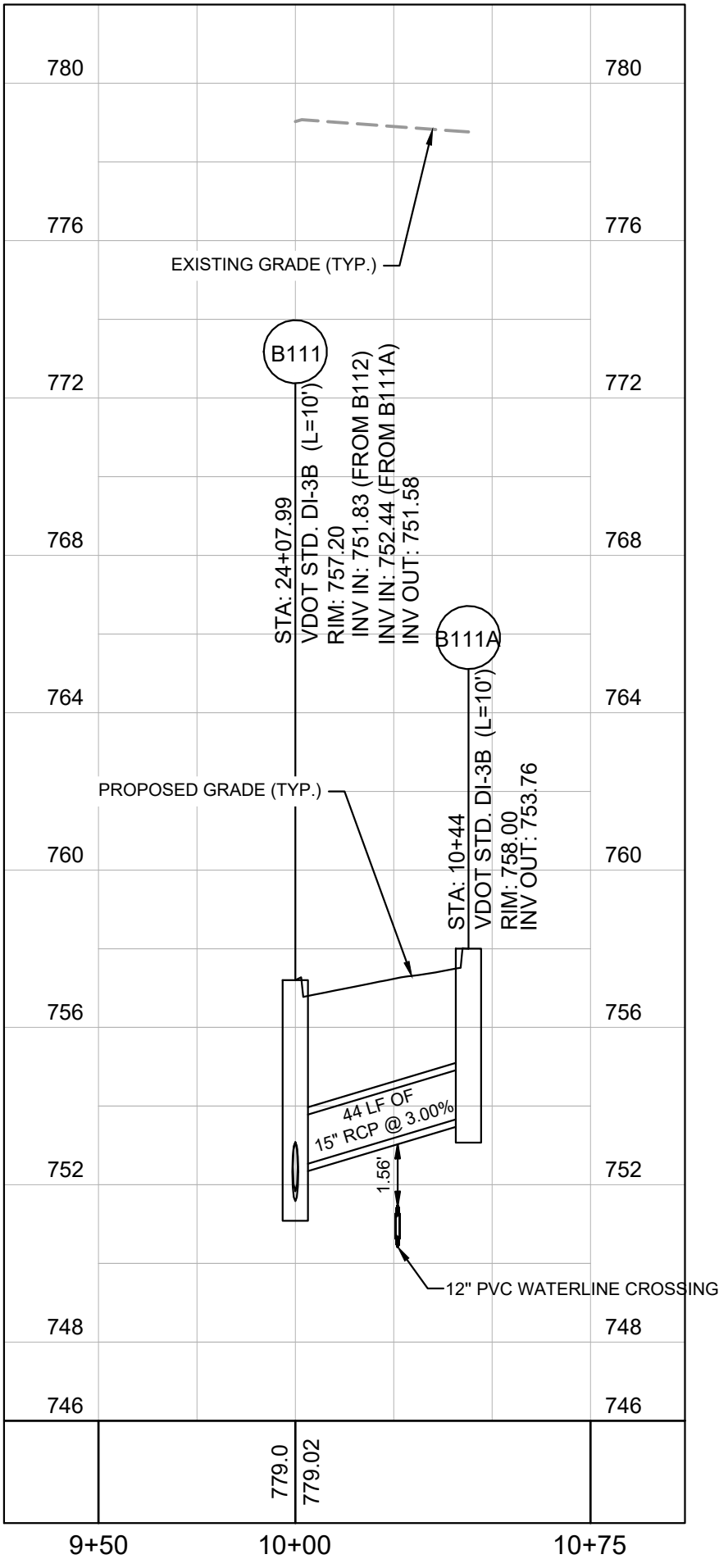
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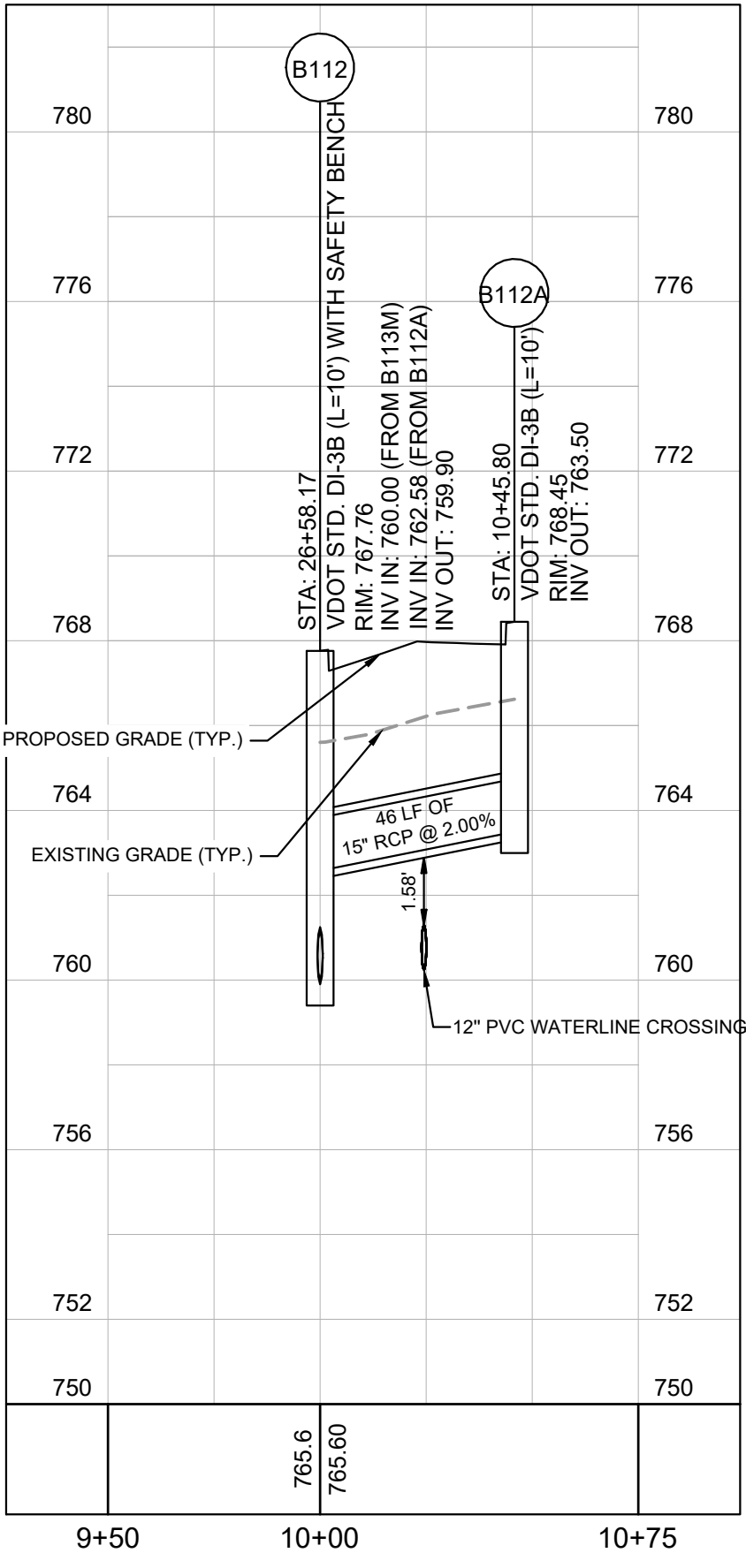


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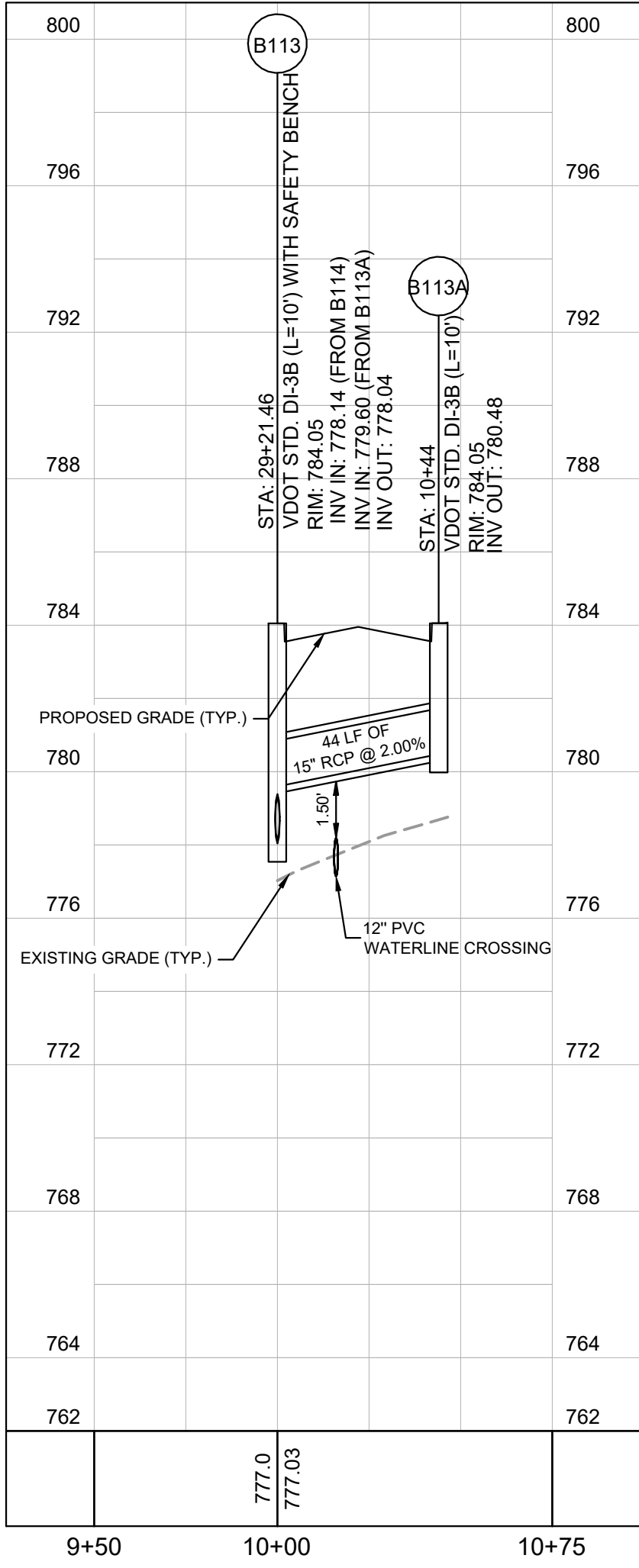
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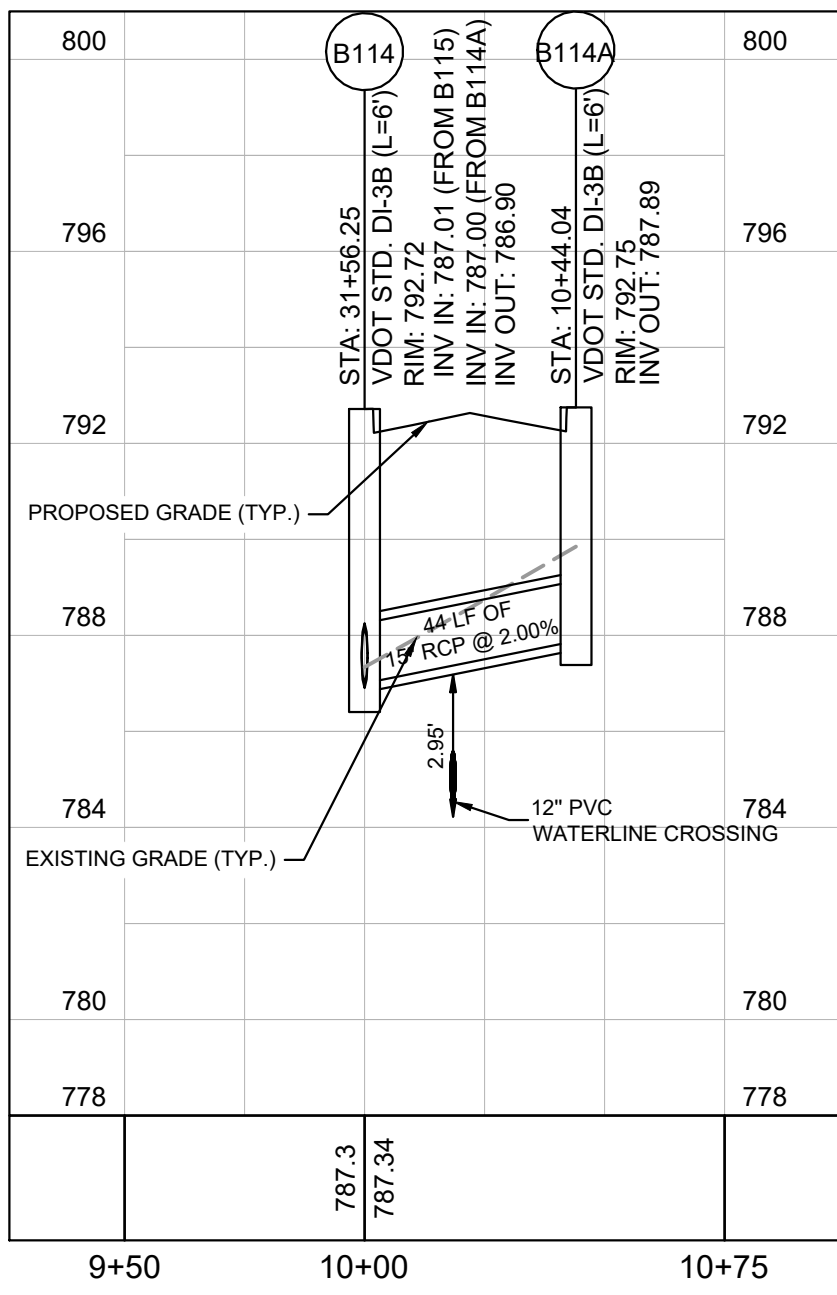
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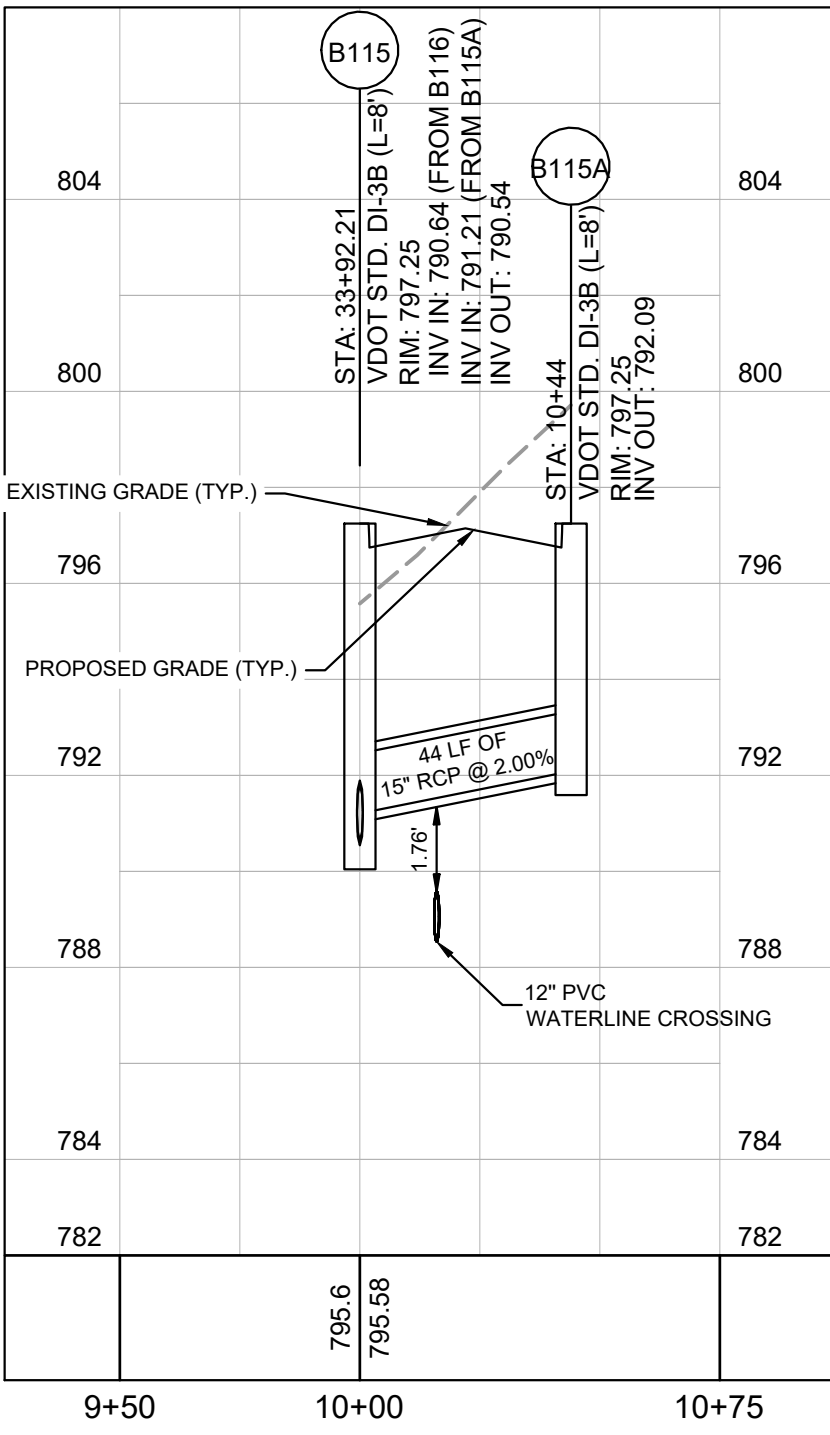
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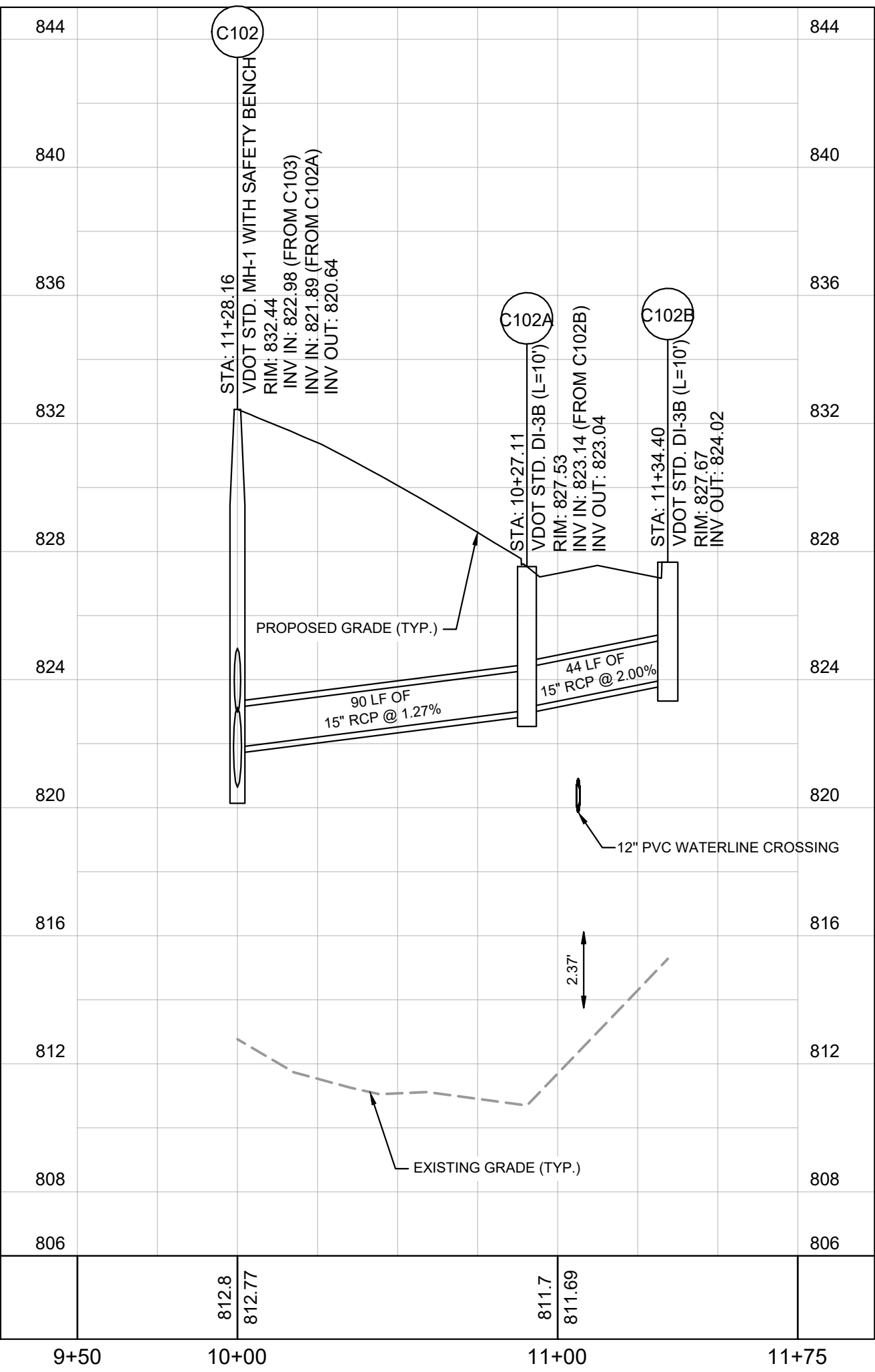
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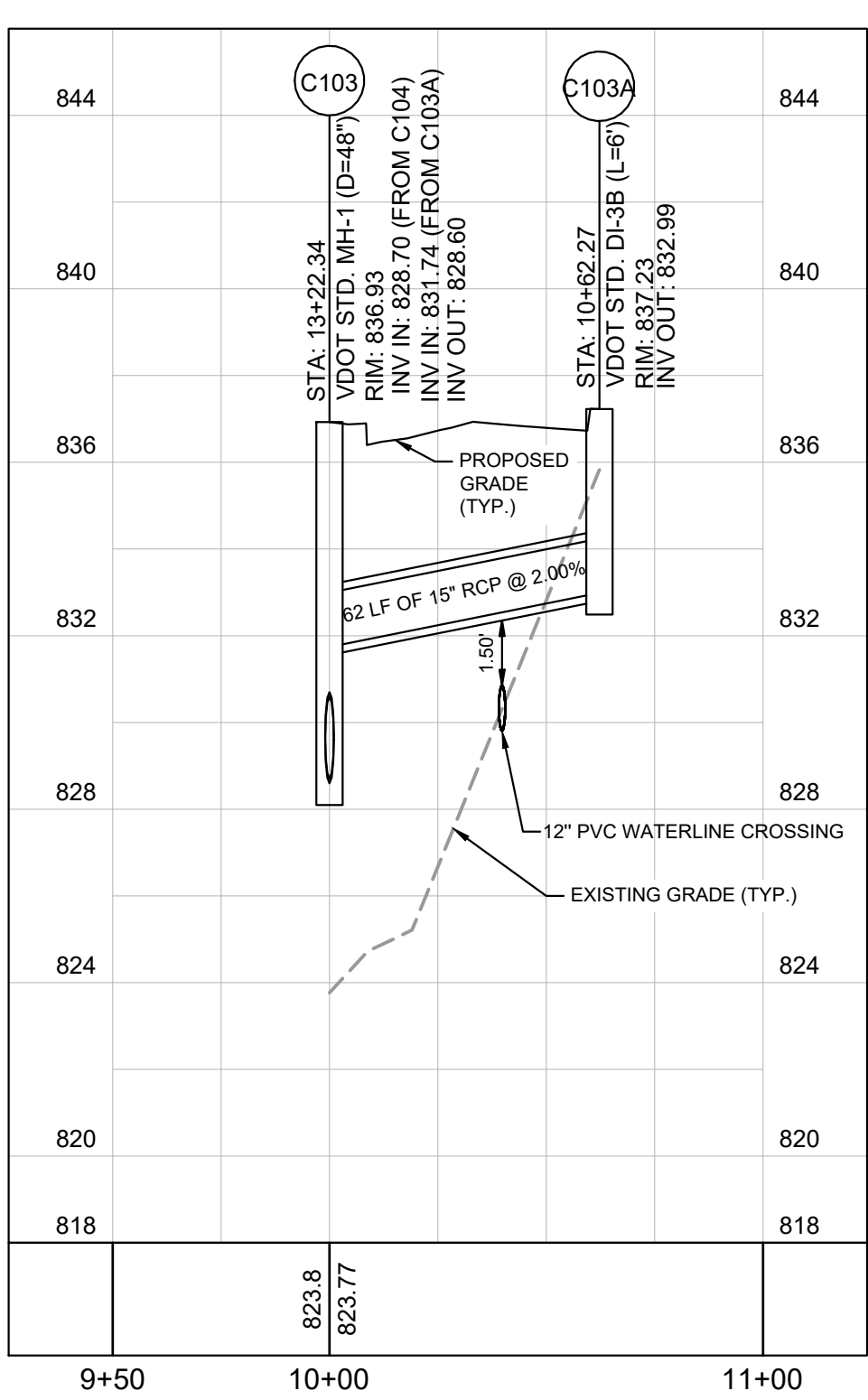
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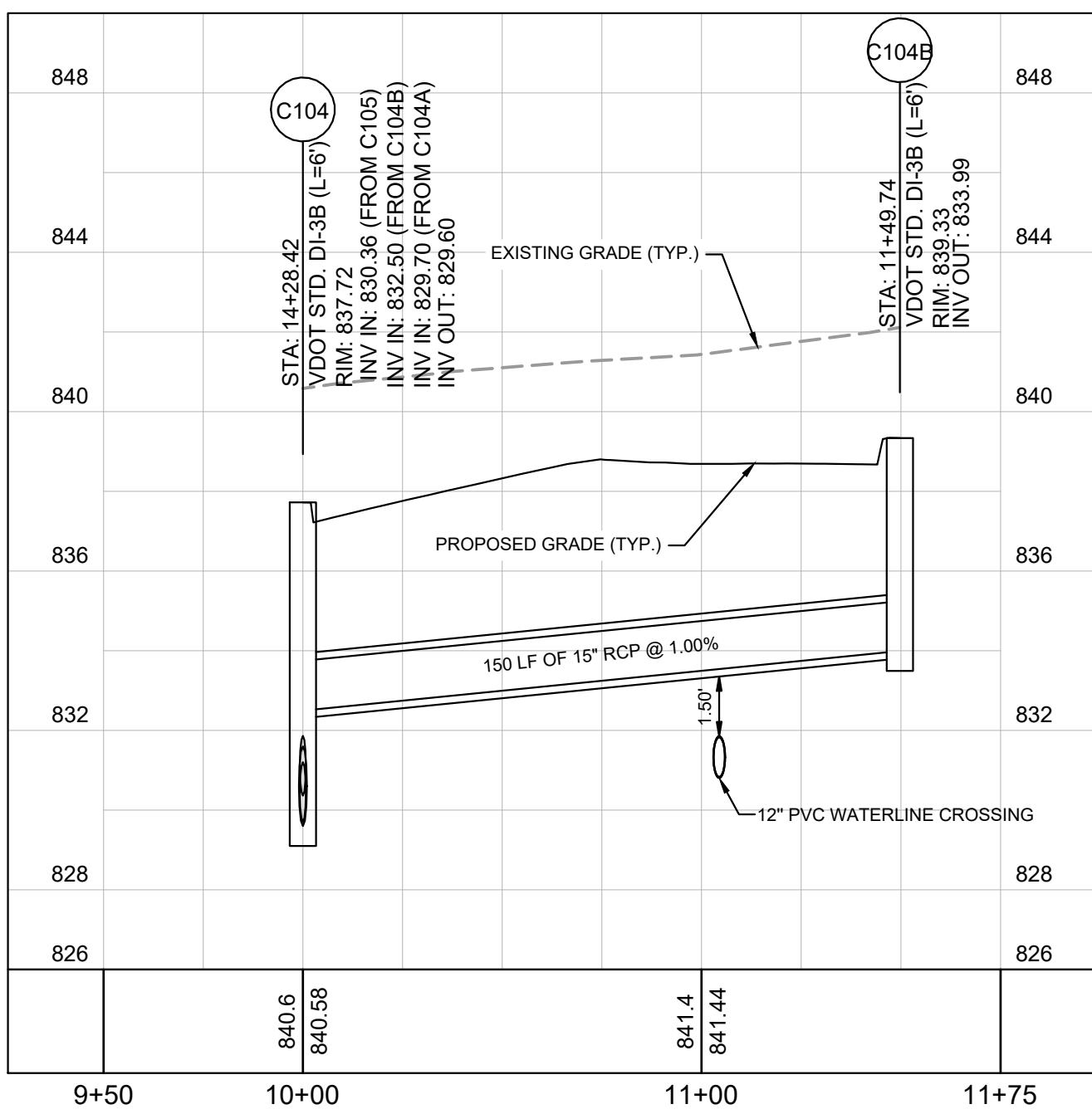
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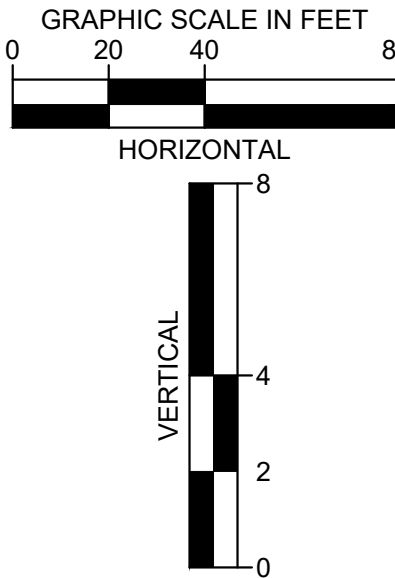
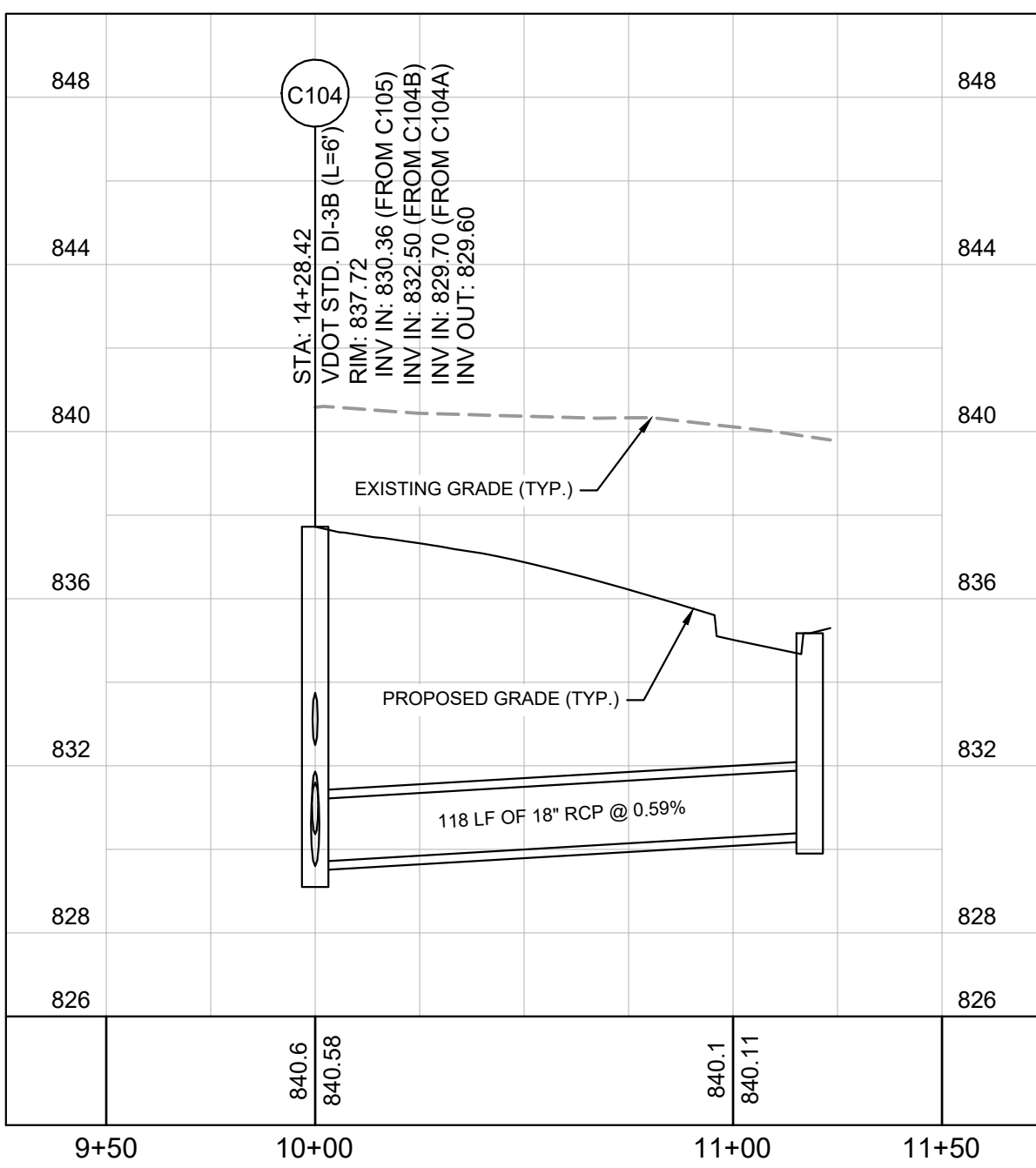
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C104 TO C104B

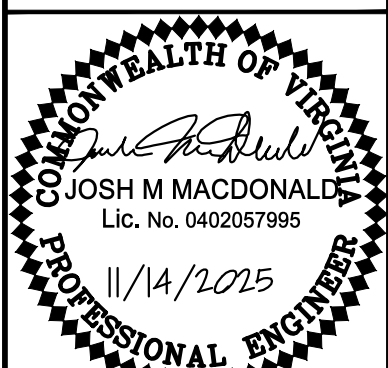


C104 TO C104A





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JOSH M. MACDONALD  
Lic. No. 0402057995  
11/14/2025

|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

PROJECT HERCULES

STORMWATER PROFILES

VA

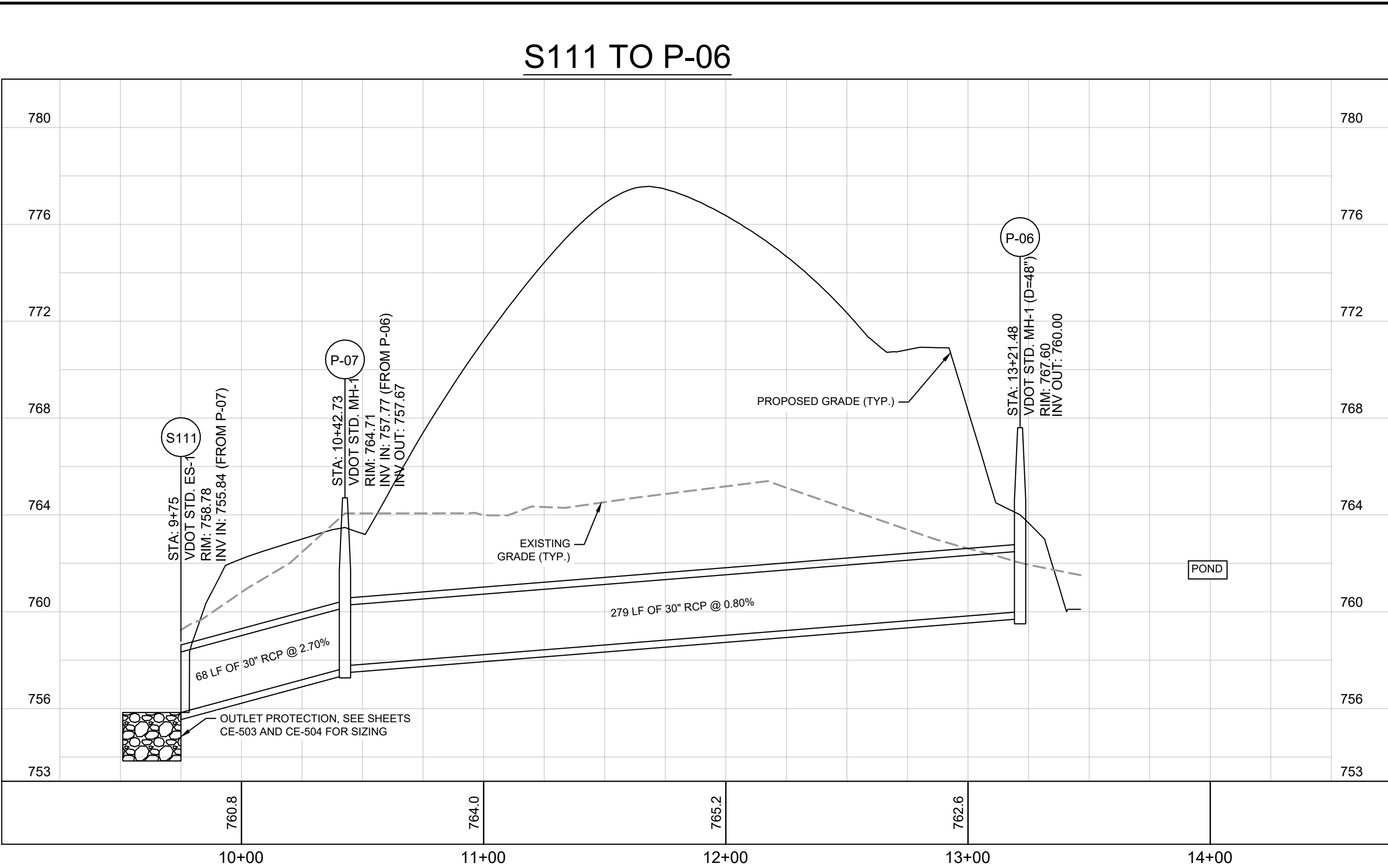
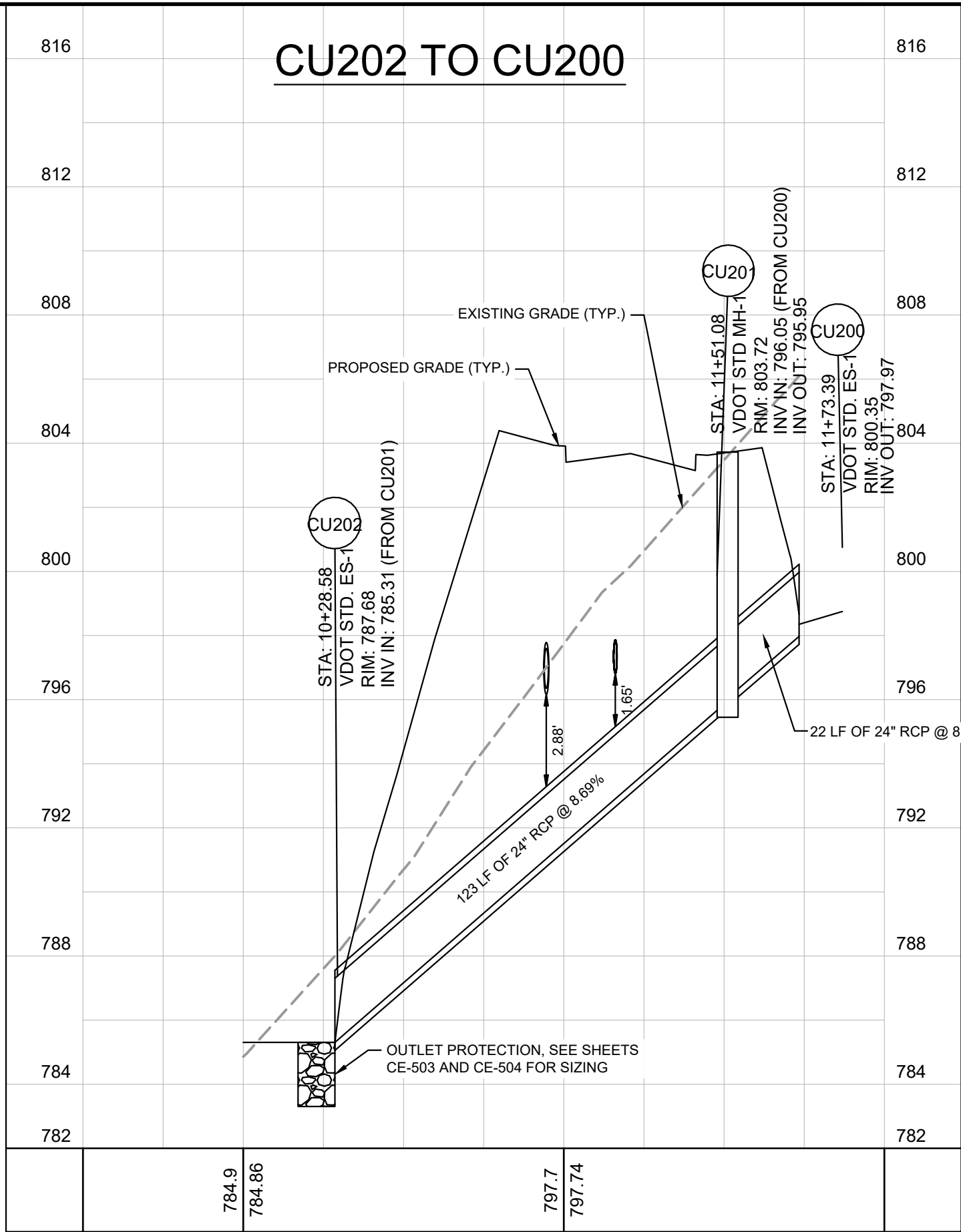
SHEET NUMBER

CG-307

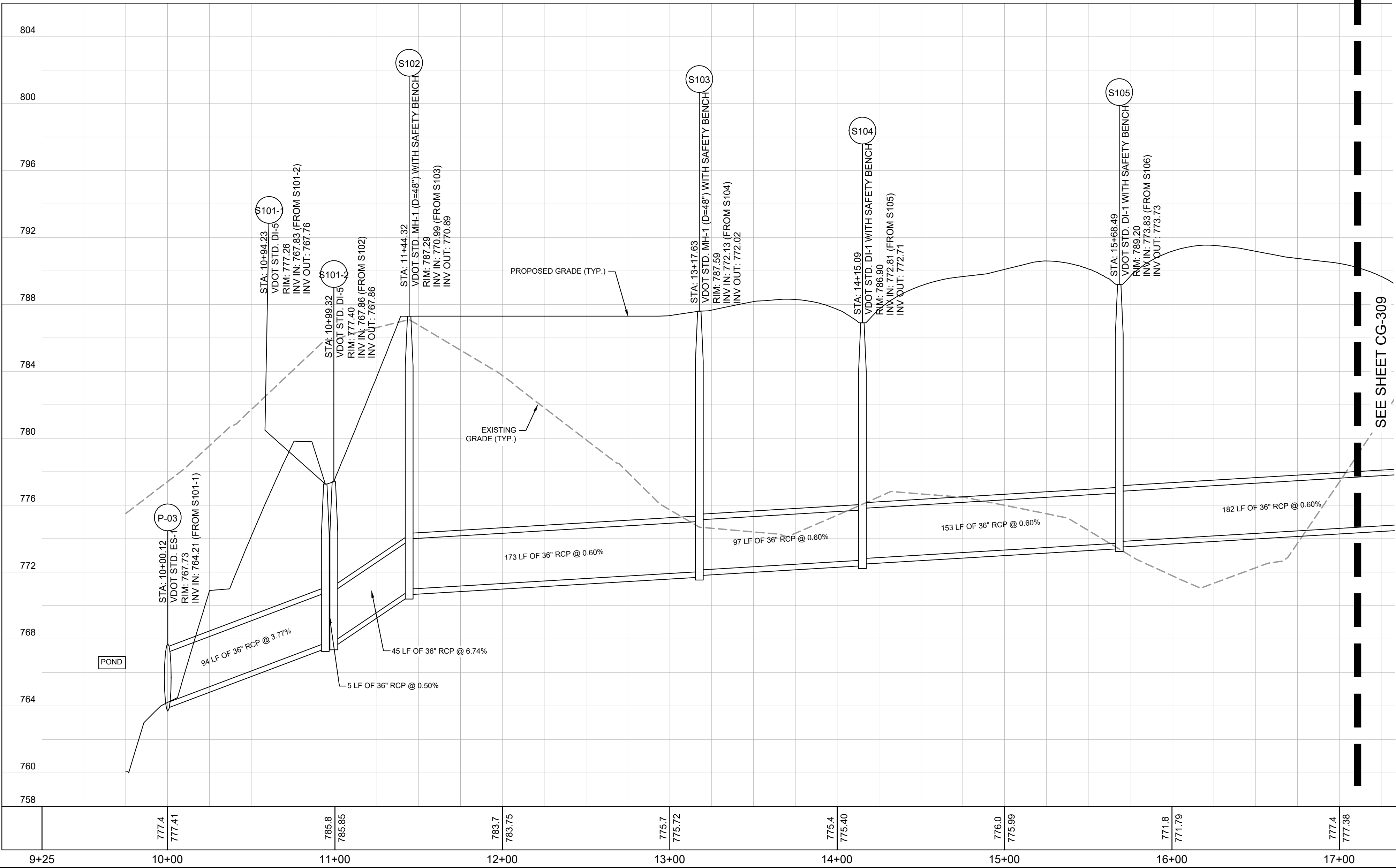
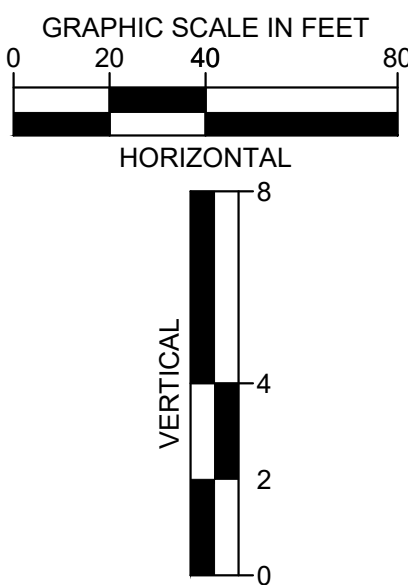
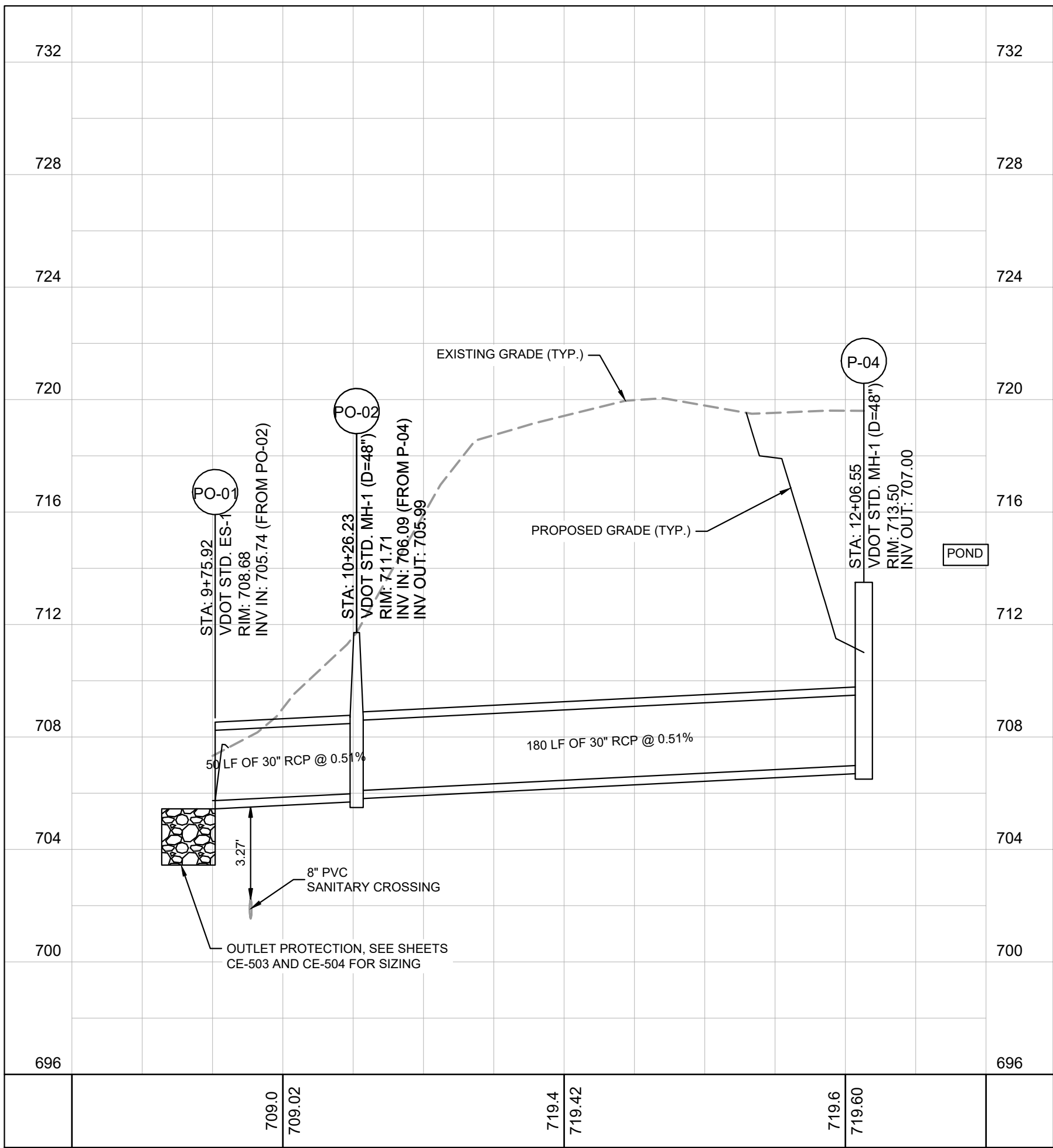
APPOMATTOX COUNTY



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PO-01 TO P-04



SEE SHEET CG-309

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**COMMONWEALTH OF VIRGINIA**  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

**PROJECT HERCULES**

APPOMATTOX COUNTY

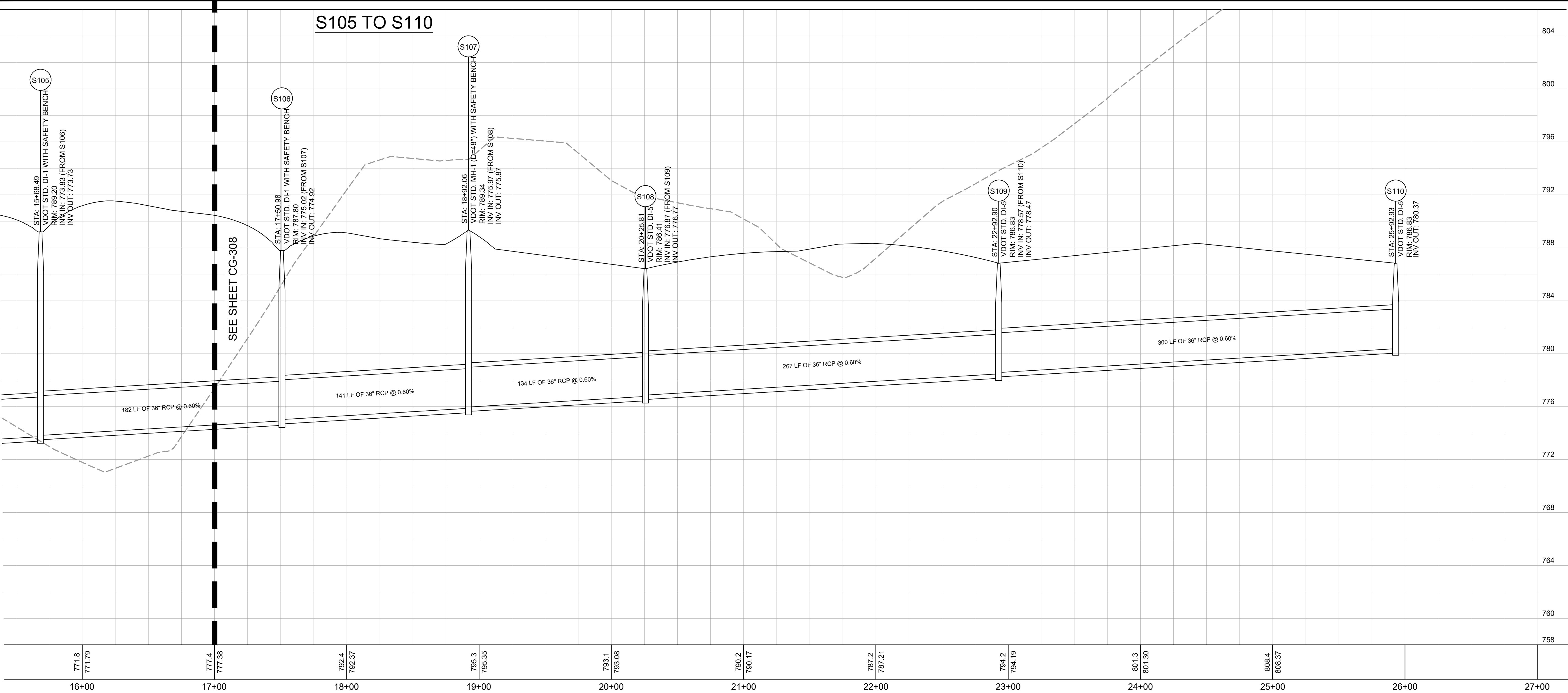
VA

**STORMWATER PROFILES**

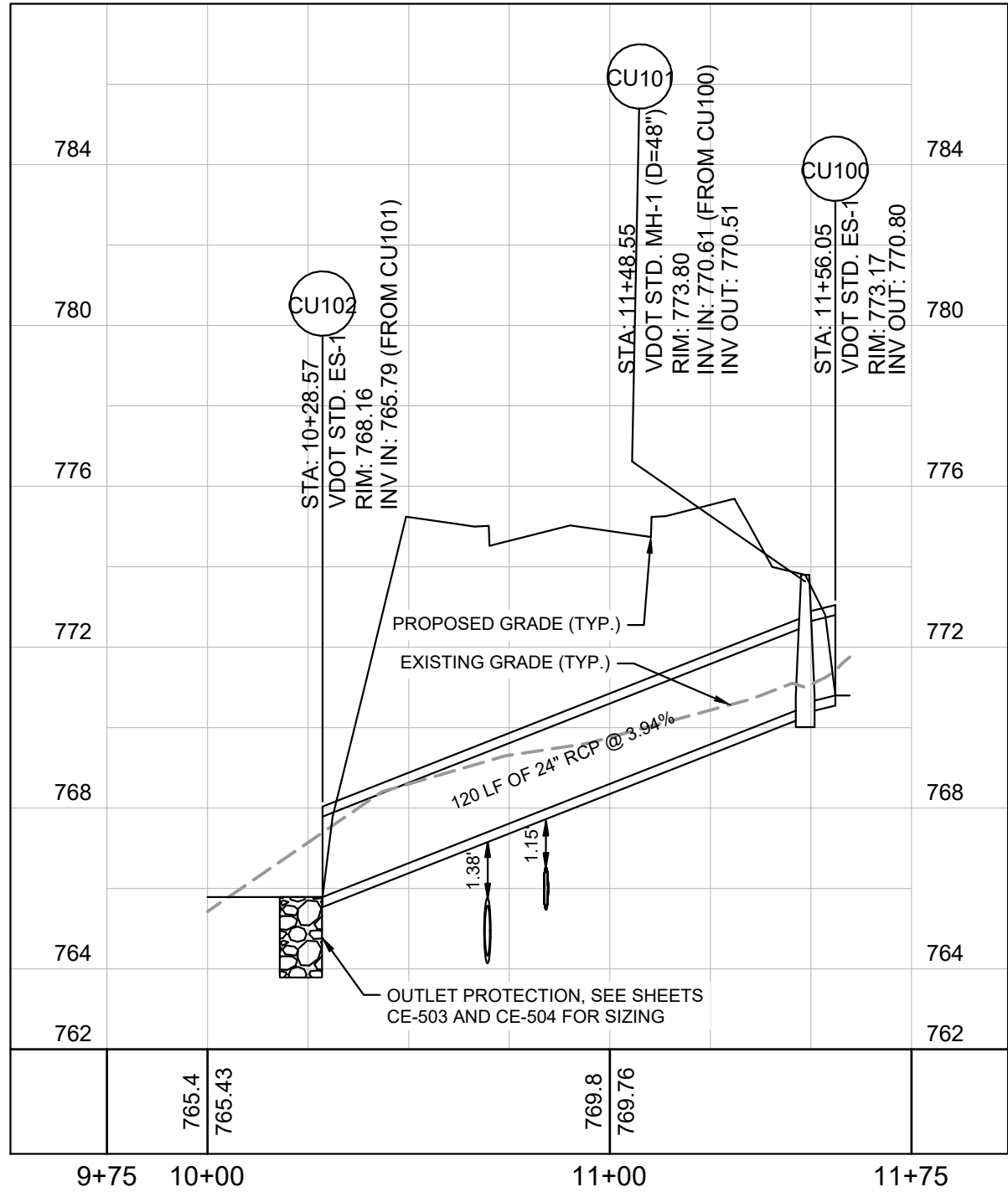
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**CG-308**

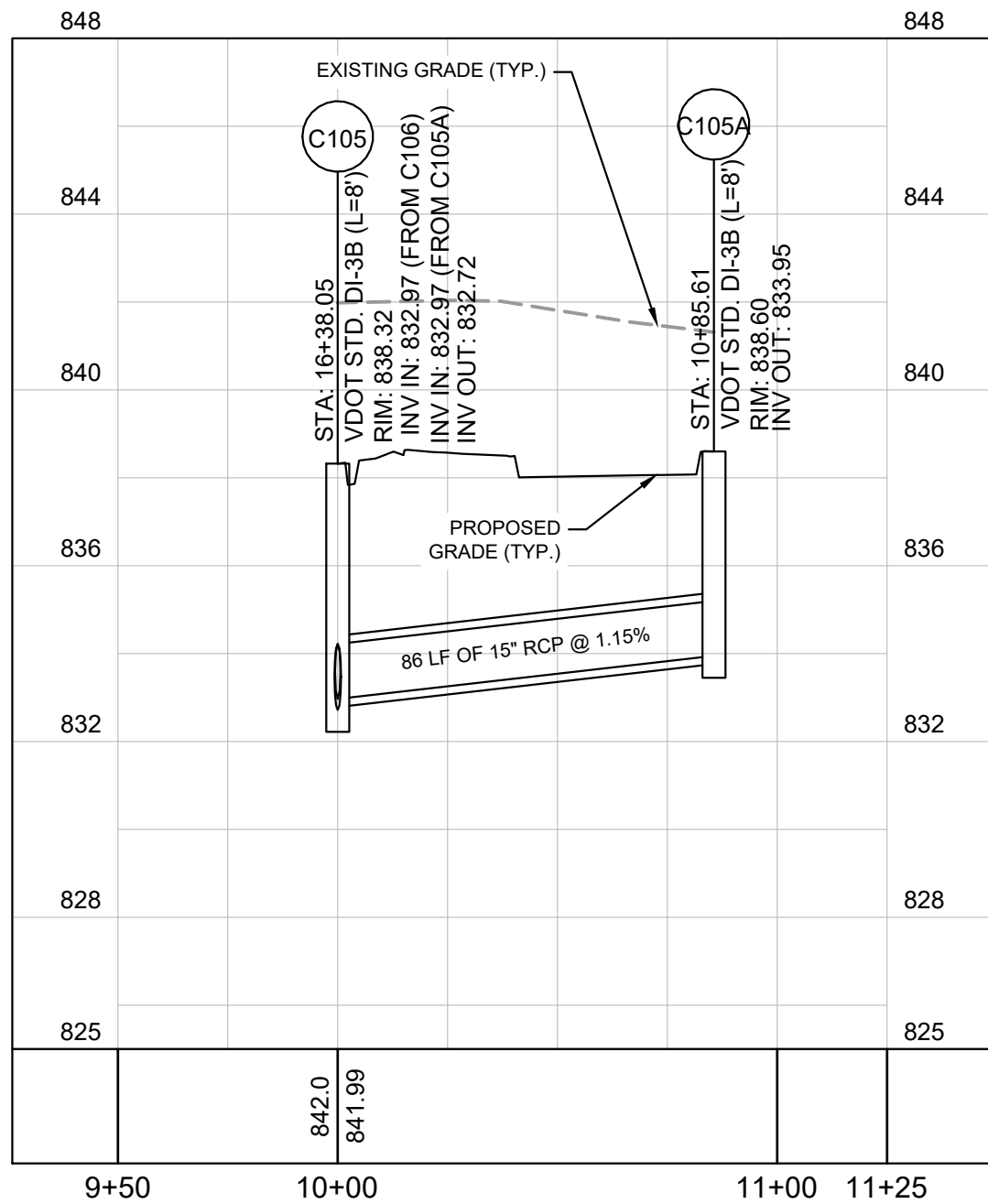




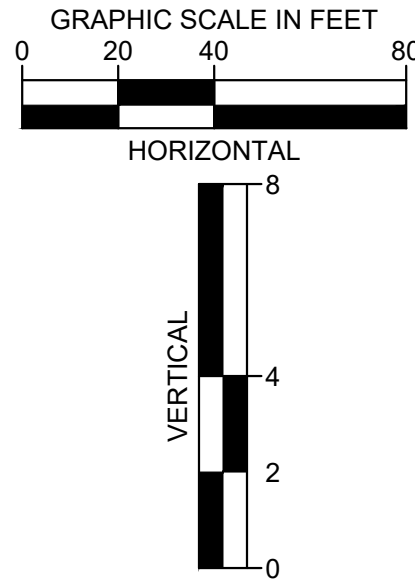
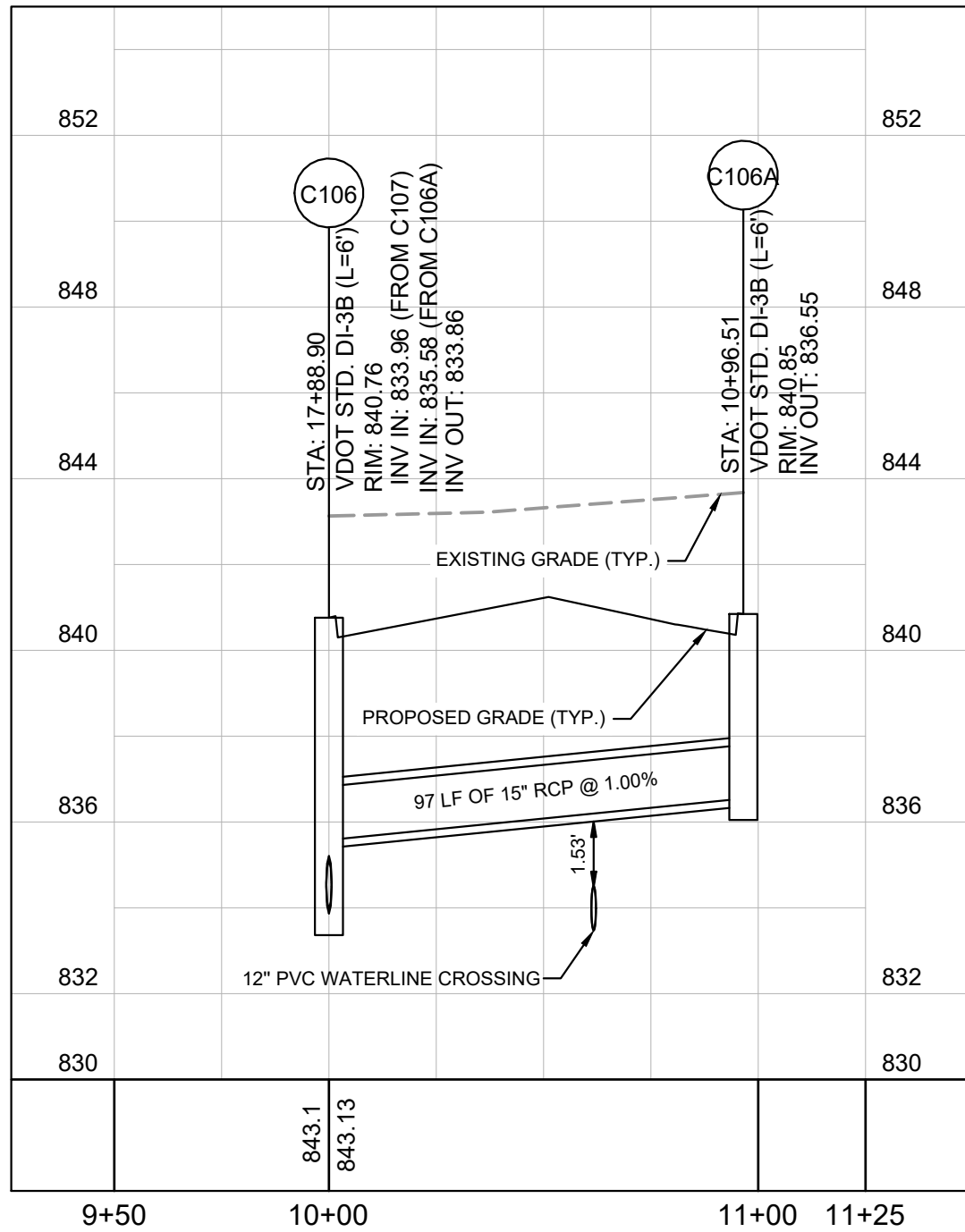
**CU102 TO CU100**



**C105 TO C105A**



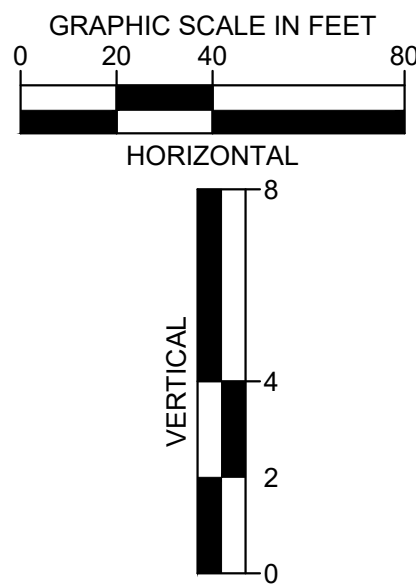
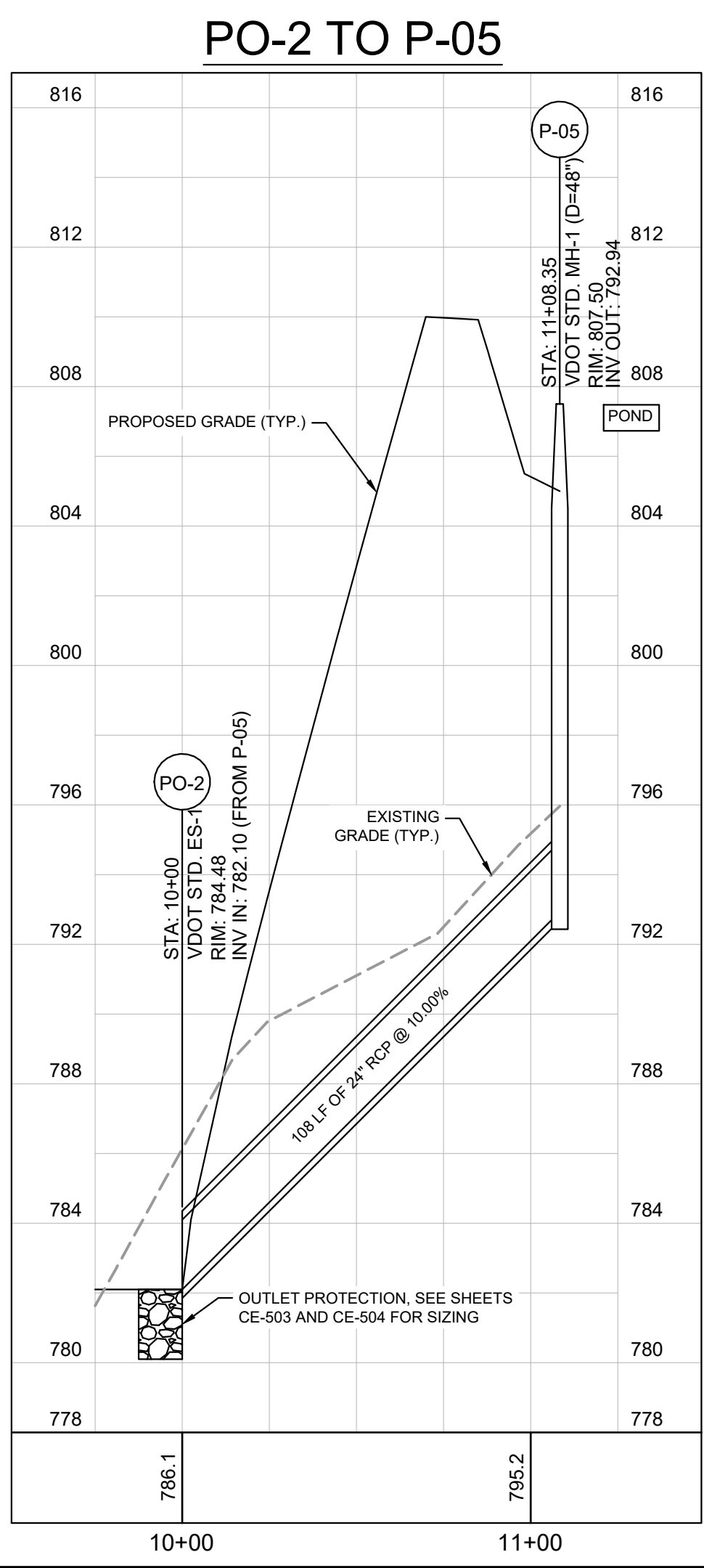
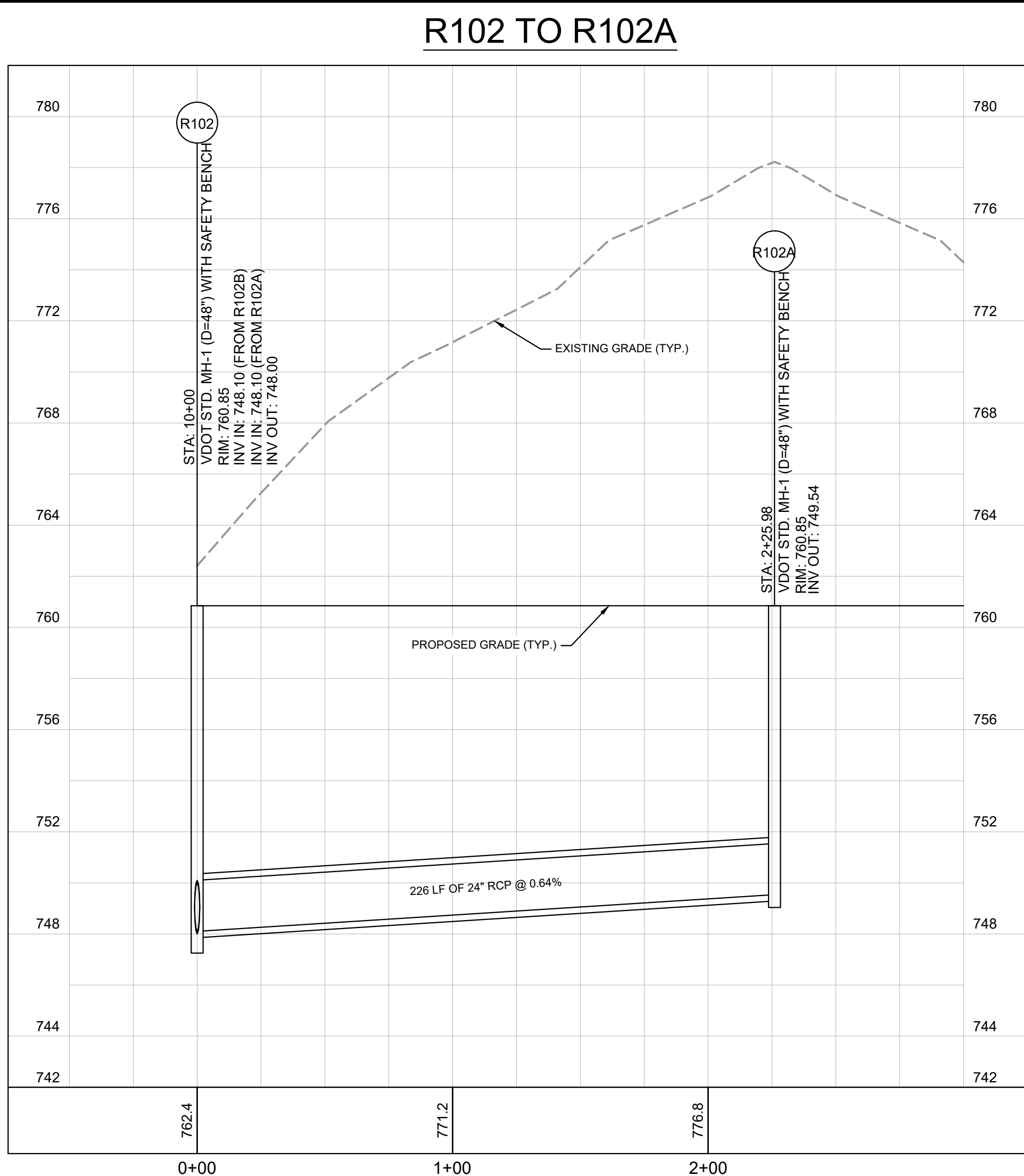
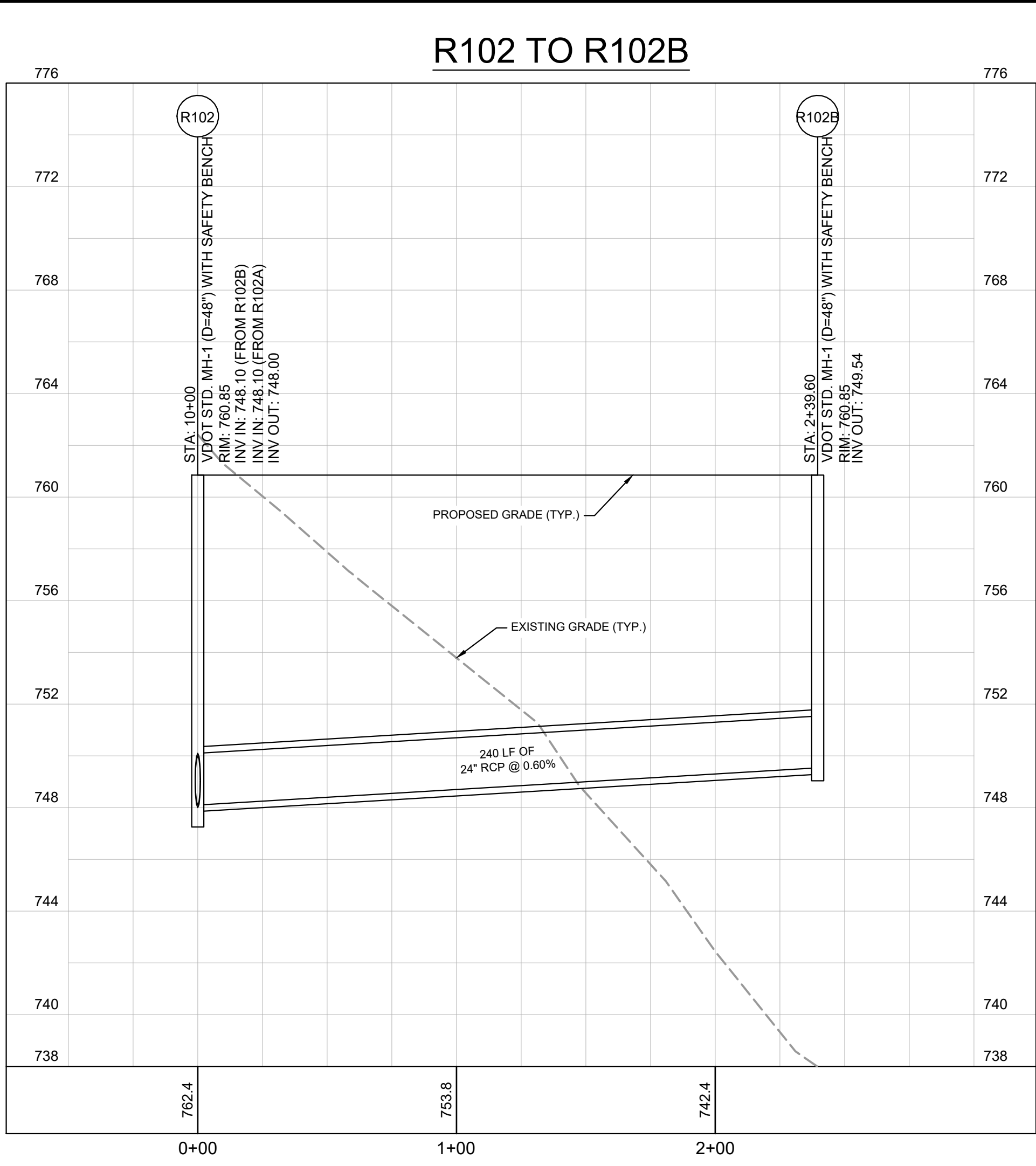
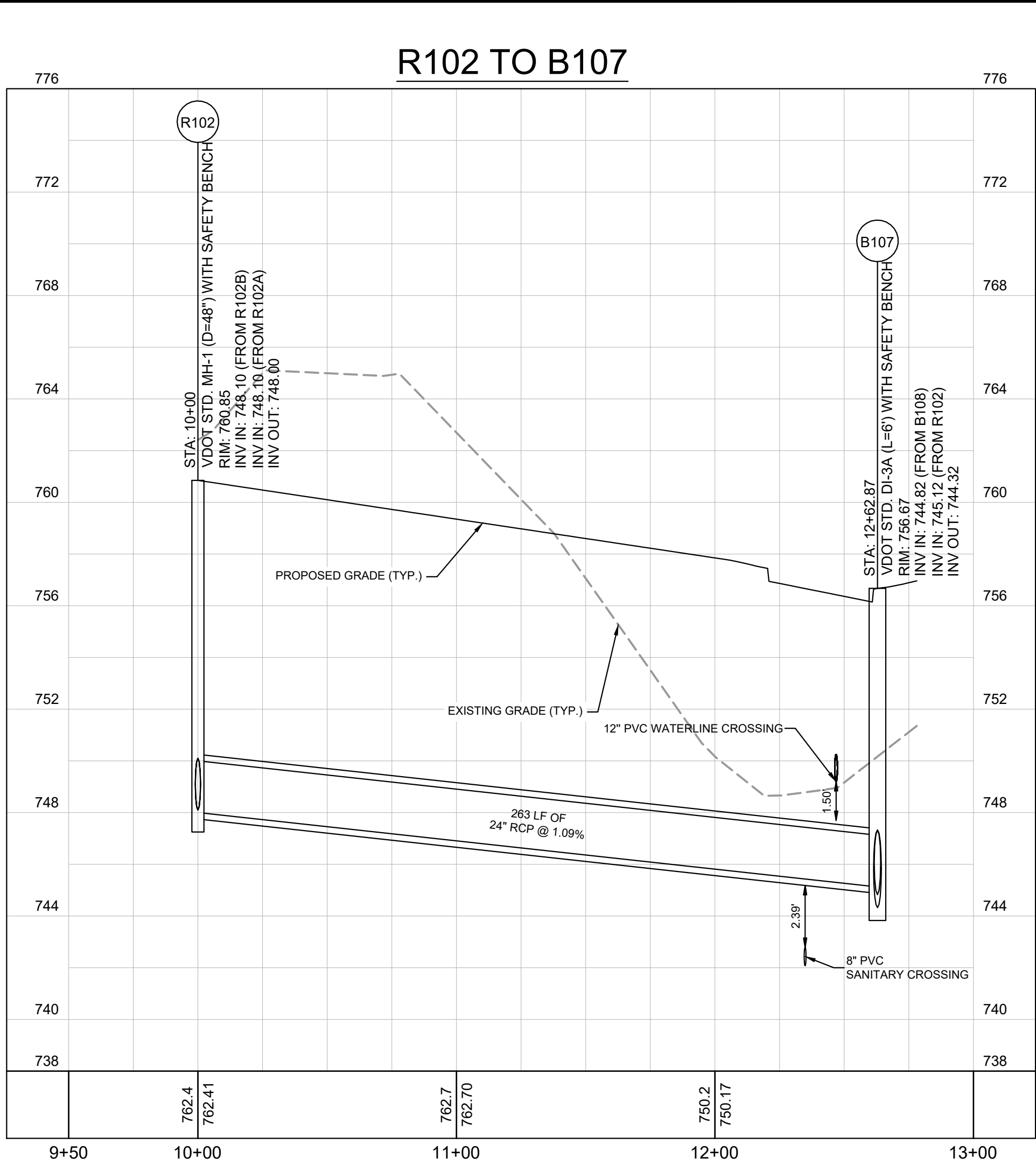
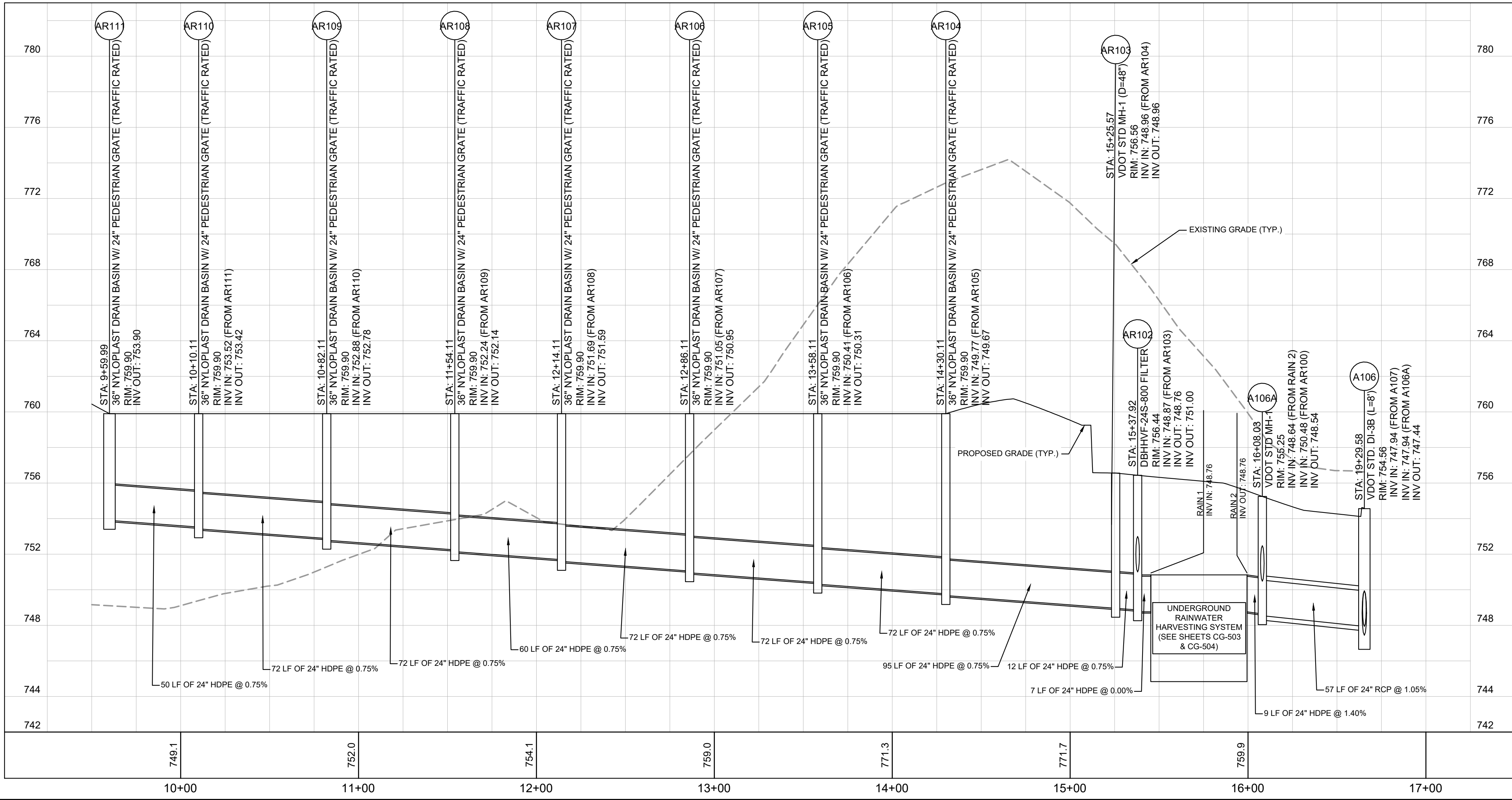
**C106 TO C106A**





Plotted By:McGray, Stephen Sheet Set:Kha Layout:CG-310 STORM WATER PROFILES November 08, 2025 04:44:38pm

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PROJECT HERCULES

STORM WATER PROFILES

VA

APPOMATTOX COUNTY

SHEET NUMBER CG-310

Kimley»Horn

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PROFESSIONAL ENGINEER

JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025

KHA PROJECT 113706001

DATE 11/14/2025

SCALE AS SHOWN

DESIGNED BY STM

DRAWN BY STM

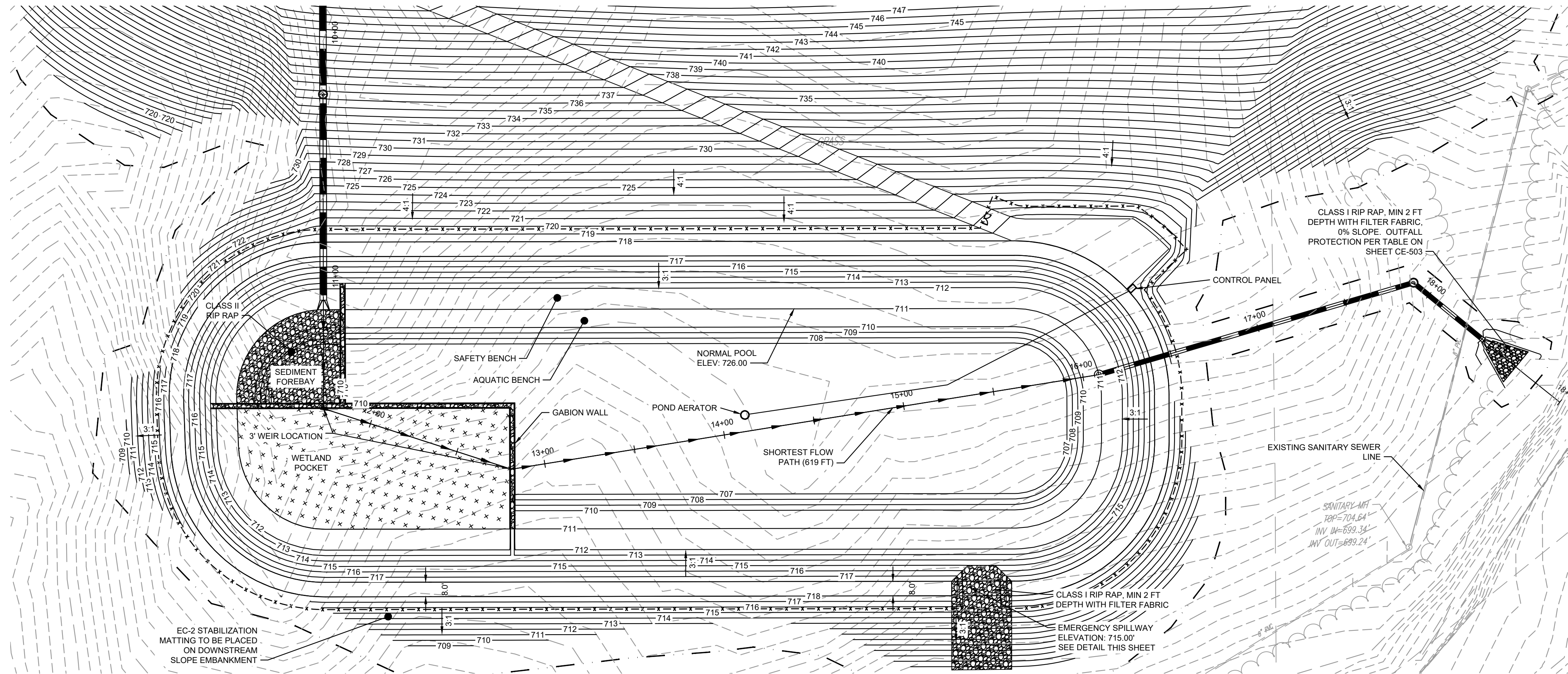
CHECKED BY JMM

Jacobs

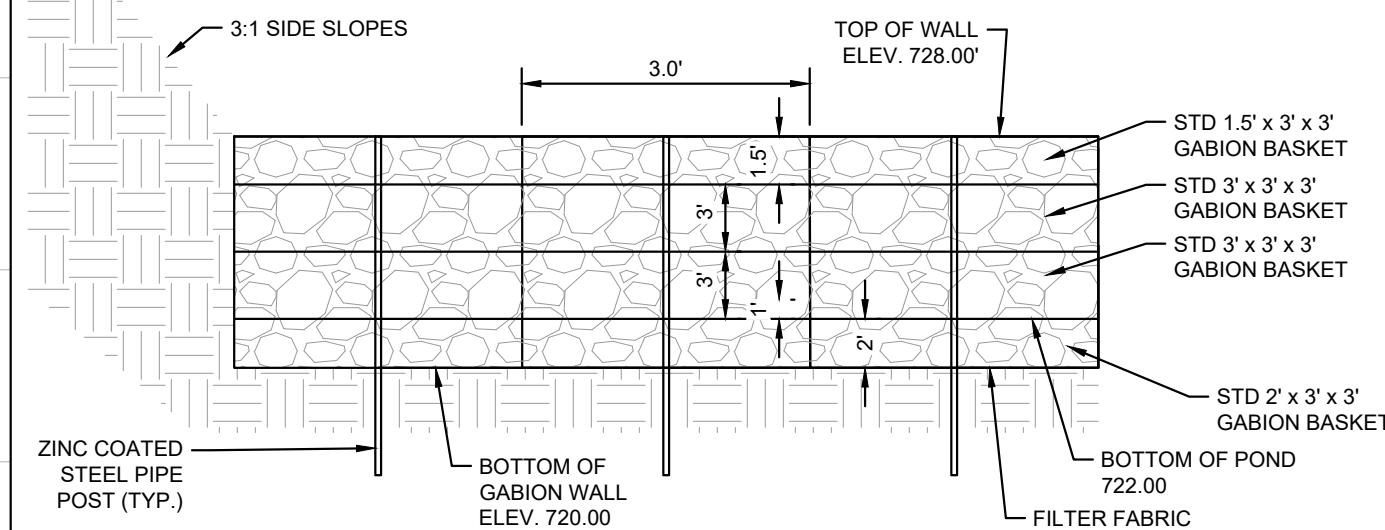
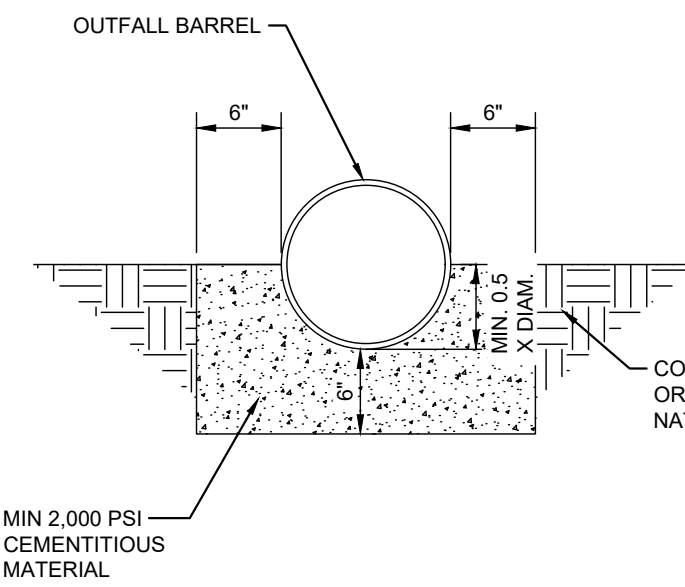
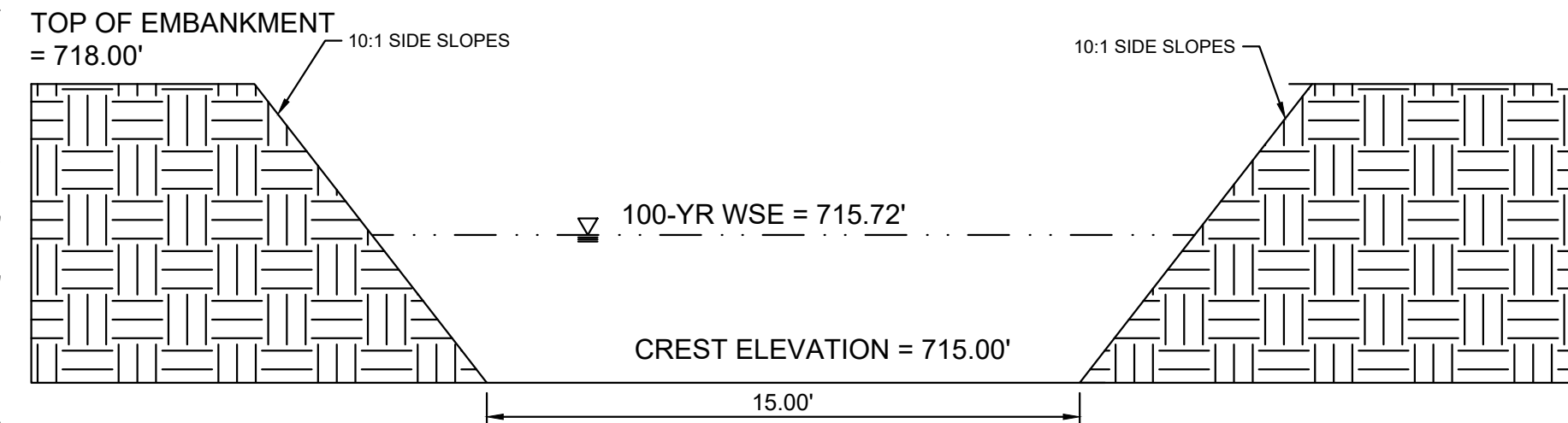
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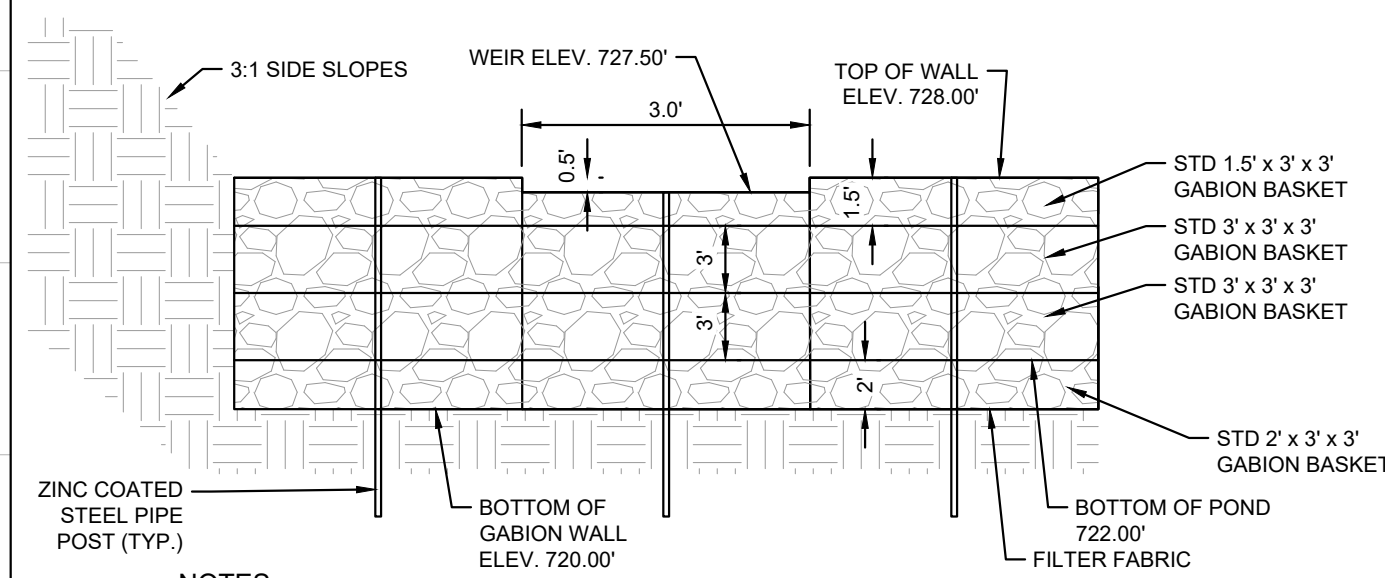
Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CG-401 STORMWATER POND DETAILS November 10, 2025 10:31:48am  
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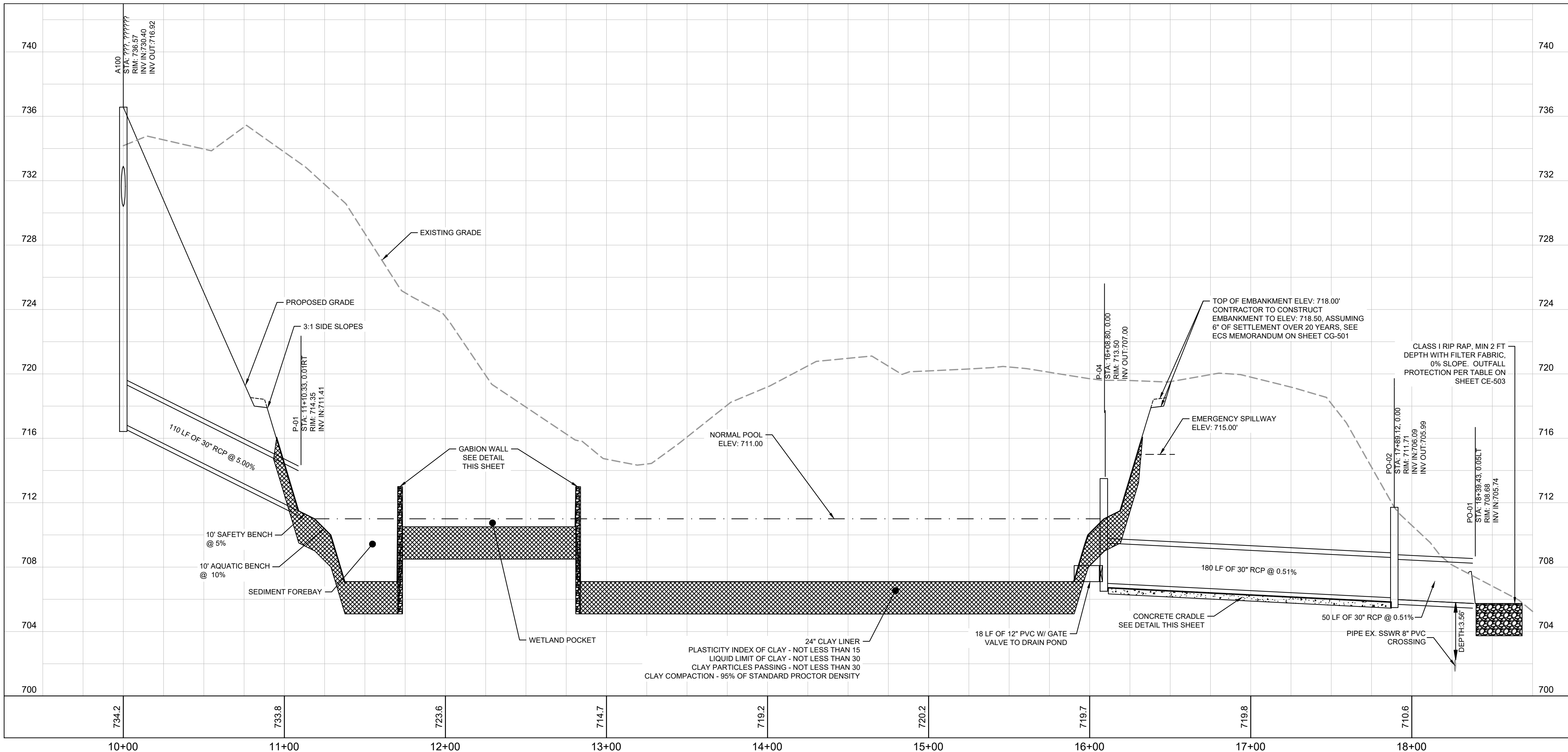
- POND AERATION NOTES**
1. LOCATION OF PUMP ENCLOSURE AND DIFFUSER ASSEMBLY SHOWN ARE APPROXIMATE.
  2. EXTENSION OF CONDUIT AND ELECTRICAL SERVICE TO BE FIELD-COORDINATED. REFER TO MANUFACTURER DETAILS ONCE AERATION SYSTEM IS SELECTED AND REVIEWED.
  3. ENGINEER RECOMMENDS "POND AERATOR, KASCO 3.3 AERATOR FOUNTAIN 480V/3P" OR SIMILAR.
  4. CONTRACTOR TO SUBMIT DESIRED AERATION SYSTEM TO ENGINEER FOR REVIEW APPROVAL PRIOR TO INSTALLATION.



- NOTES**
1. GABIONS ARE TO CONSIST OF HIGH TENSILE WIRE MESH FILLED WITH 4" GABION STONE.
  2. GABIONS BASKETS SHALL BE 3' IN WIDTH.
  3. ANCHORS TO BE SPACED 1' APART WIDTH WISE.



- NOTES**
1. GABIONS ARE TO CONSIST OF HIGH TENSILE WIRE MESH FILLED WITH 4" GABION STONE.
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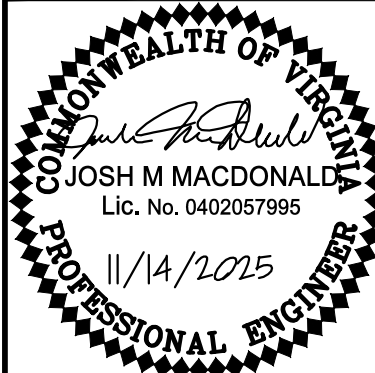
**POND A - LEVEL 2 WET POND**

SCALE: 1" = 40' H

1" = 4' V

**Jacobs**

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| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

**STORMWATER POND  
DETAILS - POND A**

**PROJECT HERCULES**

VA

APPOMATTOX COUNTY

SHEET NUMBER  
**CG-401**



Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CG-402 STORMWATER POND DETAILS November 05, 2025 04:46:24pm  
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| DESIGN CRITERIA |                         |
|-----------------|-------------------------|
| FLOW PATH       | 0.8 OR MORE             |
| AQUATIC BENCH   | 10' @ 15% MAX           |
| SAFETY BENCH    | 8-15' @ 5%              |
| WETLANDS        | 10% OF TOP BASIN        |
| FOREBAY         | 15% OF TREATMENT VOLUME |

| WET POND A FLOW PATH |     |
|----------------------|-----|
| SHORTEST FLOW PATH   | 619 |
| OVERALL LENGTH       | 619 |
| RATIO                | 1   |

WATER SURFACE ELEVATIONS

|           |         |
|-----------|---------|
| 1 YEAR:   | 713.19' |
| 2 YEAR:   | 713.57' |
| 10 YEAR:  | 714.07' |
| 100 YEAR: | 715.72' |

|                           |       |
|---------------------------|-------|
| FREEBOARD DEPTH REQ'D:    | 1.00' |
| FREEBOARD DEPTH PROVIDED: | 2.28' |

WETLANDS

|               |           |
|---------------|-----------|
| TOP OF BASIN: | 90,560 SF |
|---------------|-----------|

|                    |          |
|--------------------|----------|
| WETLANDS REQ'D:    | 9,060 SF |
| WETLANDS PROVIDED: | 9,421 SF |

POND SIZING INFORMATION

|                            |            |
|----------------------------|------------|
| DESIGN LEVEL (1 OR 2):     | 2          |
| BOTTOM POND ELEV:          | 707.00'    |
| PERM. POOL ELEV:           | 711.00'    |
| TREATMENT VOLUME REQ'D:    | 59,748 CF  |
| TREATMENT VOLUME PROVIDED: | 145,324 CF |
| PERMANENT POOL DEPTH:      | 4.0'       |

|                          |           |
|--------------------------|-----------|
| FOREBAY DEPTH REQ'D:     | 4'        |
| FOREBAY DEPTH PROVIDED:  | 6.0'      |
| FOREBAY VOLUME REQ'D:    | 8,096 CF  |
| FOREBAY VOLUME PROVIDED: | 12,923 CF |

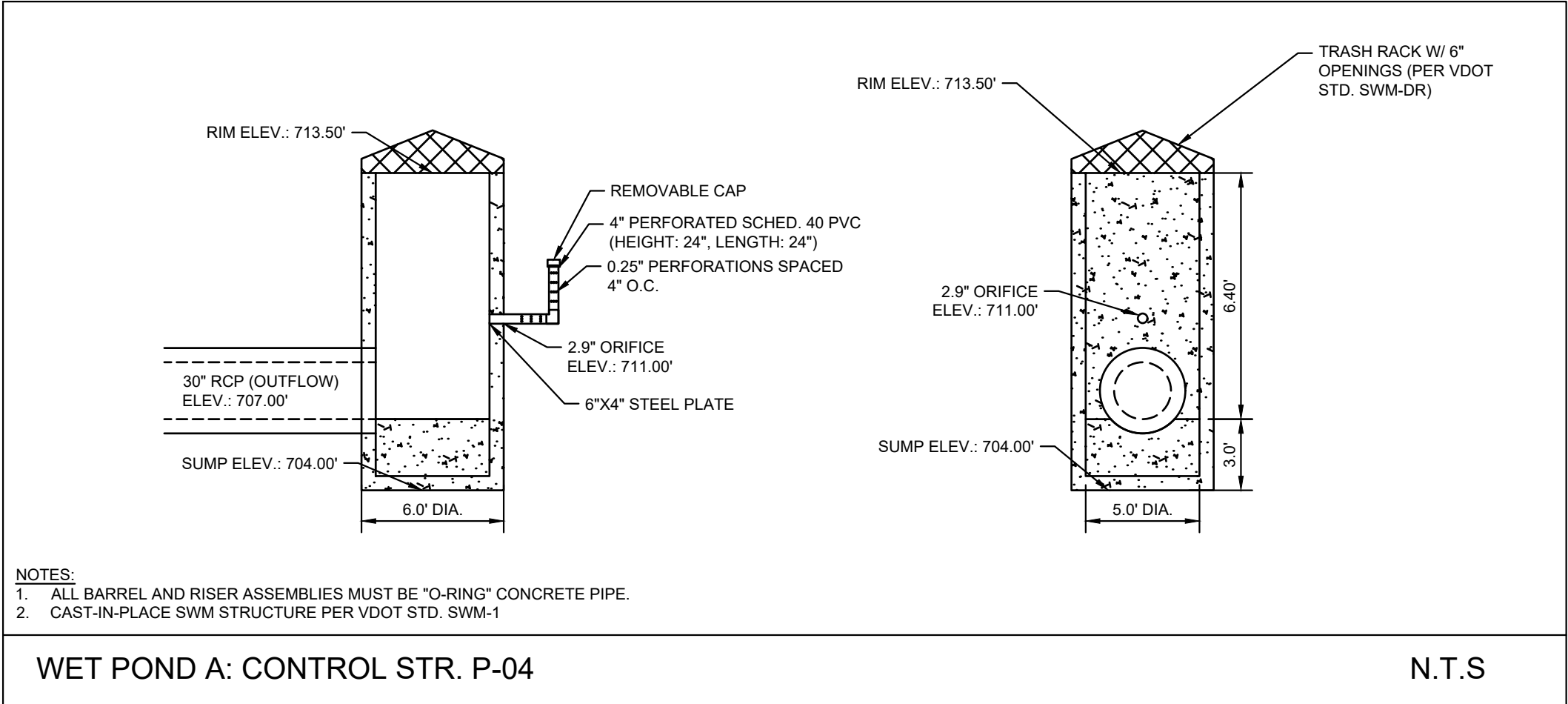
| POND A SEDIMENT FOREBAY |           |              |                         |
|-------------------------|-----------|--------------|-------------------------|
| ELEV.                   | AREA (SF) | STORAGE (CF) | CUMULATIVE STORAGE (CF) |
| 707.00                  | 1050      | 0            | 0                       |
| 707.50                  | 1139      | 547          | 547                     |
| 708.00                  | 1231      | 593          | 1140                    |
| 708.50                  | 1327      | 640          | 1779                    |
| 709.00                  | 1426      | 688          | 2468                    |
| 709.50                  | 1529      | 739          | 3206                    |
| 710.00                  | 1635      | 791          | 3997                    |
| 710.50                  | 2015      | 913          | 4910                    |
| 711.00                  | 2435      | 1113         | 6022                    |
| 711.50                  | 3391      | 1457         | 7479                    |
| 712.00                  | 3548      | 1735         | 9214                    |
| 712.50                  | 3709      | 1814         | 11028                   |
| 713.00                  | 3873      | 1896         | 12923                   |

| POND A BUOYANCY CALCULATIONS |         |            |
|------------------------------|---------|------------|
| RISER STRUCTURE              |         |            |
| RISER INSIDE DIAMETER        | 5       | FT         |
| RISER INSIDE AREA            | 19.6    | SF         |
| RISER WALL THICKNESS         | 0.5     | FT         |
| RISER OUTSIDE DIAMETER       | 6       | FT         |
| RISER OUTSIDE AREA           | 28.3    | SF         |
| RISER HEIGHT                 | 6.4     | FT         |
| RISER CONCRETE VOLUME        | 55.29   | CF         |
| BASE AREA                    | 28.3    | SF         |
| BASE HEIGHT                  | 3       | FT         |
| BASE VOLUME                  | 84.9    | CF         |
| TOTAL CONCRETE VOLUME        | 140.12  | CF         |
| VOIDS                        |         |            |
| 1-3.0" ORIFICE               | .02     | CF         |
| 1-24" CULVERT                | 1.57    | CF         |
| TOTAL VOIDS VOLUME           | 1.60    | CF         |
|                              |         |            |
| TOTAL VOLUME OF CONCRETE     | 138.52  | CF         |
| UNIT WEIGHT OF CONCRETE      | 145     | LB/CF      |
| CONCRETE FORCE               | 20,085  | LB         |
|                              |         |            |
| VOLUME OF DISPLACED WATER    | 125.66  | CF         |
| UNIT WEIGHT OF WATER         | 62.4    | LB/CF      |
| BUOYANT FORCE OF WATER       | 7841.42 | LB         |
|                              |         |            |
| SAFETY FACTOR                | 2.56    | (MIN 1.25) |
| WILL IT FLOAT?               |         | NO         |

- WET AND DRY POND SEQUENCE OF CONSTRUCTION:
- USE OF WET POND AS AN E&S CONTROL. INSTALLATION OF THE PERMANENT RISER SHOULD BE INITIATED DURING THE CONSTRUCTION PHASE, AND DESIGN ELEVATIONS SHOULD BE SET WITH FINAL CLEANOUT OF THE SEDIMENT BASIN AND CONVERSION TO THE POST-CONSTRUCTION WET POND IN MIND. APPROPRIATE PROCEDURES SHOULD BE IMPLEMENTED TO PREVENT DISCHARGE OF TURBID WATERS WHEN THE BASIN IS BEING CONVERTED INTO A WET POND.
  - STABILIZE THE DRAINAGE AREA. WET PONDS SHOULD ONLY BE CONSTRUCTED AFTER THE CONTRIBUTING DRAINAGE AREA TO THE POND IS COMPLETELY STABILIZED SINCE THE PROPOSED POND SITE WILL BE USED AS A SEDIMENT BASIN DURING THE CONSTRUCTION PHASE. THE FACILITY WILL BE DEWATERED, DREDGED AND RE-GRADED TO DESIGN DIMENSIONS AFTER THE ORIGINAL SITE CONSTRUCTION IS COMPLETE.
  - ASSEMBLE CONSTRUCTION MATERIALS ON-SITE, MAKE SURE THEY MEET DESIGN SPECIFICATIONS, AND PREPARE ANY STAGING AREAS.
  - INSTALL E&S CONTROLS PRIOR TO CONSTRUCTION, INCLUDING TEMPORARY DE-WATERING DEVICES AND STORMWATER DIVERSION PRACTICE. ALL AREAS SURROUNDING THE POND THAT ARE GRADED OR DENUDED DURING CONSTRUCTION MUST BE PLANTED WITH TURF GRASS, NATIVE PLANTINGS, OR OTHER APPROVED METHODS OF SOIL STABILIZATION.
  - CLEAR AND STRIP THE PROJECT AREA TO THE DESIRED SUB-GRADE.
  - EXCAVATE THE CORE TRENCH AND INSTALL THE SPILLWAY PIPE.
  - INSTALL THE RISER STRUCTURE AND ENSURE THE TOP INVERT OF THE OVERFLOW WEIR IS CONSTRUCTED AT THE DESIGN ELEVATION.
  - CONSTRUCT THE EMBANKMENT AND ANY INTERNAL BERMS IN 8-12 INCH LIFTS, OR AS DIRECTED BY GEOTECHNICAL RECOMMENDATIONS, AND COMPACT AS REQUIRED WITH APPROPRIATE EQUIPMENT.
  - EXCAVATE/GRADE UNTIL THE APPROPRIATE ELEVATION AND DESIRED CONTOURS ARE ACHIEVED FOR THE BOTTOM AND SIDE SLOPES OF THE POND.
  - INSTALL OUTLET PROTECTION.
  - STABILIZE EXPOSED SOILS WITH TEMPORARY SEED MIXTURES APPROPRIATE FOR THE POND BUFFER. ALL AREAS ABOVE THE NORMAL POOL ELEVATION SHOULD BE PERMANENTLY STABILIZED FOR HYDROSEEDING OR SEEDING OVER STRAW. SEE SHEETS CP-501 THROUGH CP-502 FOR POND PLANTING PLANS.

- MAINTENANCE PLAN
- FIRST YEAR MAINTENANCE
    - FOR THE FIRST SIX MONTHS FOLLOWING CONSTRUCTION, THE SITE SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED 1/2-INCH OF RAINFALL.
    - THE AQUATIC BENCHES SHOULD BE PLANTED WITH EMERGENT WETLAND SPECIES.
    - INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE POND BUFFER, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER.
    - TREES PLANTED IN THE POND BUFFER NEED TO BE WATERED DURING THE FIRST GROWING SEASON. WATER EVERY 3 DAYS FOR THE FIRST MONTH AND THEN WEEKLY THROUGH THE FIRST GROWING SEASON (APRIL-OCTOBER) DEPENDING ON RAINFALL.
  - ANNUAL MAINTENANCE/INSPECTION
    - MEASURE SEDIMENT ACCUMULATION LEVELS IN THE FORE BAY.
    - MONITOR THE GROWTH OF WETLAND PLANTS, TREES AND SHRUBS PLANTED. RECORD THE SPECIES AND THEIR APPROXIMATE COVERAGE, AND NOTE THE PRESENCE OF ANY INVASIVE SPECIES.
    - INSPECT THE CONDITION OF STORM WATER INLETS TO THE POND FOR MATERIAL DAMAGE, EROSION OR UNDERCUTTING.
    - INSPECT THE BANKS OF UPSTREAM AND DOWNSTREAM CHANNELS FOR EVIDENCE OF SLOUGHING, ANIMAL BURROWS, BOGGY AREAS, WOODY GROWTH, OR GULLY EROSION THAT MAY UNDERMINE EMBANKMENT INTEGRITY.
    - INSPECT THE POND OUTFALL CHANNEL FOR EROSION, UNDERCUTTING, RIP-RAP DISPLACEMENT, WOODY GROWTH, ETC.
    - INSPECT THE CONDITION OF THE PRINCIPAL SPILLWAY AND RISER FOR EVIDENCE OF SPALLING, JOINT FAILURE, LEAKAGE, CORROSION, ETC.
    - INSPECT THE CONDITION OF ALL TRASH RACKS, REVERSE-SLOPED PIPES, OR FLASHBOARD RISERS FOR EVIDENCE OF CLOGGING, LEAKAGE, DEBRIS ACCUMULATION, ETC.
    - INSPECT MAINTENANCE ACCESS TO ENSURE IT IS FREE OF WOODY VEGETATION, AND CHECK TO SEE WHETHER VALVES, MANHOLES AND LOCKS CAN BE OPENED AND OPERATED.
    - INSPECT INTERNAL AND EXTERNAL SIDE SLOPES OF THE POND FOR EVIDENCE OF SPARSE VEGETATIVE COVER, EROSION, OR SLUMPING AND MAKE NEEDED REPAIRS IMMEDIATELY.
- NOTE: BASED ON INSPECTION RESULTS, SPECIFIC MAINTENANCE TASKS WILL BE TRIGGERED. EXAMPLE MAINTENANCE CHECKLISTS FOR WET PONDS CAN BE ACCESSED IN APPENDIX H OF CHAPTER 8 (SECTION 8.5 P-BAS-03 SUBSECTION 7.0)) OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH).

- EARTHEN EMBANKMENT NOTES
- THE EARTHEN EMBANKMENT MUST BE DESIGNED WITH CONSIDERATION GIVEN TO: SPECIFIC SITE AND FOUNDATION CONDITIONS, CONSTRUCTION MATERIAL CHARACTERISTICS, PURPOSE OF THE IMPOUNDMENT, AND HAZARD POTENTIAL ASSOCIATED WITH THE PARTICULAR SITE OR IMPOUNDMENT.
  - THE MATERIAL USED FOR THE EMBANKMENT MUST BE SUFFICIENTLY IMPERVIOUS TO PROVIDE AN ADEQUATE WATER BARRIER.
  - THE EARTHEN EMBANKMENT MUST BE DESIGNED TO BE STABLE AGAINST ANY FORCE CONDITION OR COMBINATION OF FORCE CONDITIONS THAT MAY DEVELOP DURING THE LIFE OF THE STRUCTURE.
  - CHARACTER AND DISTRIBUTION OF THE FOUNDATION MATERIAL MUST BE CONSIDERED FOR ITS SHEAR STRENGTH, COMPRESSIBILITY, AND PERMEABILITY.
  - FILL MATERIALS MUST BE SUFFICIENTLY PLASTIC TO DEFORM WITHOUT CRACKING.
  - THE MINIMUM REQUIRED DENSITY OF THE FILL MATERIAL IS 95% OF MAXIMUM.
  - GRAVEL BEDDING IS NOT ALLOWED UNDER ANY CONDUITS THROUGH THE EMBANKMENT.
  - REFER TO ECS FINAL GEOTECHNICAL REPORT FOR EMBANKMENT REQUIREMENTS.



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|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

PROJECT HERCULES

STORMWATER POND DETAILS - POND A

VA

SHEET NUMBER

CG-402



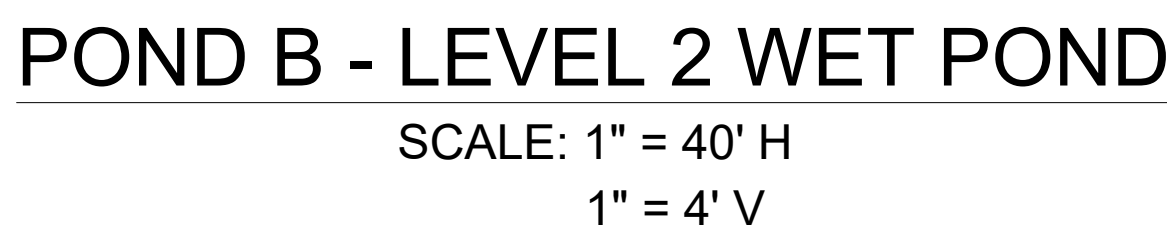
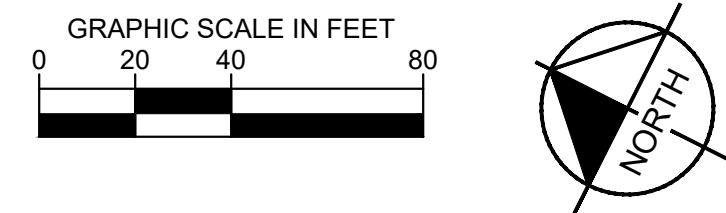


Diagram illustrating the cross-section of a road embankment. The embankment has a crest width of 14.00' and 10:1 side slopes. The top of the embankment is at an elevation of 809.90', and the crest elevation is 808.60'.

Diagram illustrating the cross-section of a concrete curb and gutter assembly. The assembly consists of a concrete curb (labeled "CURB OR NA") and an outfall barrel (labeled "OUTFALL BARREL"). The curb is made of "MIN 2,000 PSI CEMENTITIOUS MATERIAL". The outfall barrel is 6" wide and 6" high. The curb is 6" wide and 6" high. The barrel is set into the curb. The barrel is labeled "MIN 0.5 X DIA.".

3:1 SIDE SLOPES

3.0'

TOP OF WALL  
ELEV. 807.00'

STD 1.5' x 3' x 3'  
GABION BASKET

STD 3' x 3' x 3'  
GABION BASKET

STD 3' x 5' x 3'  
GABION BASKET

STD 2' x 3' x 3'  
GABION BASKET

ZINC COATED  
STEEL PIPE  
POST (TYP.)

BOTTOM OF  
GABION WALL  
ELEV. 800.00'

BOTTOM OF POND  
802.00'

FILTER FABRIC

Diagram A-A shows a cross-section of a gabion wall. The wall is composed of four layers of gabion baskets: a top layer of 1.5' x 3' x 3' baskets, followed by three layers of 3' x 3' x 3' baskets. The total height of the wall is 3.0 feet. The wall is built on a 3:1 side slope. The top of the wall is at an elevation of 807.00 feet, and the bottom of the wall is at an elevation of 800.00 feet. The bottom of the pond is at an elevation of 802.00 feet. The wall is constructed using zinc-coated steel pipe posts. A filter fabric is located at the bottom of the wall. The diagram also shows the standard dimensions for the gabion baskets: 1.5' x 3' x 3', 3' x 3' x 3', 3' x 5' x 3', and 2' x 3' x 3'.

3 GABION WALL DETAIL  
N.T.S.

3:1 SIDE SLOPES

WEIR ELEV. 806.50'

3.0'

0.6'

TOP OF WALL ELEV. 807.00'

STD 1.5' x 3' x 3' GABION BASKET

STD 3' x 3' x 3' GABION BASKET

STD 3' x 5' x 3' GABION BASKET

STD 2' x 3' x 3' GABION BASKET

ZINC COATED STEEL PIPE POST (TYP.)

BOTTOM OF GABION WALL ELEV. 800.00'

BOTTOM OF POND 802.00'

FILTER FABRIC

4 GABION WALL (WITH WEIR) DETAIL

Plotted By: McCray, Stephen Sheet Set: Khs Layout: CG-403 STORMWATER POND DETAILS November 10, 2025 10:31:54am  
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DESIGN CRITERIA

|               |                         |
|---------------|-------------------------|
| FLOW PATH     | 0.5 OR MORE             |
| AQUATIC BENCH | 10' @ 15% MAX           |
| SAFETY BENCH  | 8-15' @ 5%              |
| FOREBAY       | 15% OF TREATMENT VOLUME |

WET POND B FLOW PATH

|                    |     |
|--------------------|-----|
| SHORTEST FLOW PATH | 224 |
| OVERALL LENGTH     | 224 |
| RATIO              | 1   |

WATER SURFACE ELEVATIONS

|           |         |
|-----------|---------|
| 1 YEAR:   | 807.12  |
| 2 YEAR:   | 807.53' |
| 10 YEAR:  | 807.80  |
| 100 YEAR: | 808.42' |

|                           |       |
|---------------------------|-------|
| FREEBOARD DEPTH REQ'D:    | 1.00' |
| FREEBOARD DEPTH PROVIDED: | 1.58' |

WETLANDS

|               |           |
|---------------|-----------|
| TOP OF BASIN: | 21,782 SF |
|---------------|-----------|

|                    |          |
|--------------------|----------|
| WETLANDS REQ'D:    | 2,200 SF |
| WETLANDS PROVIDED: | 2,300 SF |

POND SIZING INFORMATION

|                            |           |
|----------------------------|-----------|
| DESIGN LEVEL (1 OR 2):     | 2         |
| BOTTOM POND ELEV:          | 802.00'   |
| PERM. POOL ELEV:           | 805.00'   |
| TREATMENT VOLUME REQ'D:    | 11,682 CF |
| TREATMENT VOLUME PROVIDED: | 13,804 CF |
| PERMANENT POOL DEPTH:      | 3.0'      |

|                          |          |
|--------------------------|----------|
| FOREBAY DEPTH REQ'D:     | 4.0'     |
| FOREBAY DEPTH PROVIDED:  | 5.0'     |
| FOREBAY VOLUME REQ'D:    | 1,295 CF |
| FOREBAY VOLUME PROVIDED: | 3,781 CF |

| POND B SEDIMENT FOREBAY |           |              |                         |
|-------------------------|-----------|--------------|-------------------------|
| m                       | AREA (SF) | STORAGE (CF) | CUMULATIVE STORAGE (CF) |
| 802.00                  | 123       | 0            | 0                       |
| 802.50                  | 167       | 73           | 73                      |
| 803.00                  | 213       | 95           | 168                     |
| 803.50                  | 263       | 119          | 287                     |
| 804.00                  | 316       | 145          | 431                     |
| 804.50                  | 520       | 209          | 640                     |
| 805.00                  | 763       | 321          | 961                     |
| 805.50                  | 1366      | 532          | 1493                    |
| 806.00                  | 1470      | 709          | 2202                    |
| 806.50                  | 1578      | 762          | 2964                    |
| 807.00                  | 1689      | 817          | 3781                    |

POND B BUOYANCY CALCULATIONS

RISER STRUCTURE

|                        |        |    |
|------------------------|--------|----|
| RISER INSIDE DIAMETER  | 5      | FT |
| RISER INSIDE AREA      | 19.6   | SF |
| RISER WALL THICKNESS   | 0.5    | FT |
| RISER OUTSIDE DIAMETER | 6      | FT |
| RISER OUTSIDE AREA     | 28.3   | SF |
| RISER HEIGHT           | 14.56  | FT |
| RISER CONCRETE VOLUME  | 125.79 | CF |
| BASE AREA              | 28.3   | SF |
| BASE HEIGHT            | 3      | FT |
| BASE VOLUME            | 84.9   | CF |
| TOTAL CONCRETE VOLUME  | 210.61 | CF |

VOIDS

|                    |      |    |
|--------------------|------|----|
| 1-1.1" ORIFICE     | .003 | CF |
| 1-24" CULVERT      | 1.57 | CF |
| TOTAL VOIDS VOLUME | 1.57 | CF |

|                          |        |       |
|--------------------------|--------|-------|
| TOTAL VOLUME OF CONCRETE | 209.04 | CF    |
| UNIT WEIGHT OF CONCRETE  | 145    | LB/CF |
| CONCRETE FORCE           | 30,310 | LB    |

|                           |        |       |
|---------------------------|--------|-------|
| VOLUME OF DISPLACED WATER | 285.88 | CF    |
| UNIT WEIGHT OF WATER      | 62.4   | LB/CF |
| BUOYANT FORCE OF WATER    | 17,839 | LB    |

|                |      |            |
|----------------|------|------------|
| SAFETY FACTOR  | 1.70 | (MIN 1.25) |
| WILL IT FLOAT? |      | NO         |

WET AND DRY POND SEQUENCE OF CONSTRUCTION:

- USE OF WET POND AS AN E&S CONTROL. INSTALLATION OF THE PERMANENT RISER SHOULD BE INITIATED DURING THE CONSTRUCTION PHASE, AND DESIGN ELEVATIONS SHOULD BE SET WITH FINAL CLEANOUT OF THE SEDIMENT BASIN AND CONVERSION TO THE POST-CONSTRUCTION WET POND IN MIND. APPROPRIATE PROCEDURES SHOULD BE IMPLEMENTED TO PREVENT DISCHARGE OF TURBID WATERS WHEN THE BASIN IS BEING CONVERTED INTO A WET POND.
- STABILIZE THE DRAINAGE AREA. WET PONDS SHOULD ONLY BE CONSTRUCTED AFTER THE CONTRIBUTING DRAINAGE AREA TO THE POND IS COMPLETELY STABILIZED SINCE THE PROPOSED POND SITE WILL BE USED AS A SEDIMENT BASIN DURING THE CONSTRUCTION PHASE. THE FACILITY WILL BE DEWATERED, DREDGED AND RE-GRADED TO DESIGN DIMENSIONS AFTER THE ORIGINAL SITE CONSTRUCTION IS COMPLETE.
- ASSEMBLE CONSTRUCTION MATERIALS ON-SITE, MAKE SURE THEY MEET DESIGN SPECIFICATIONS, AND PREPARE ANY STAGING AREAS.
- INSTALL E&S CONTROLS PRIOR TO CONSTRUCTION, INCLUDING TEMPORARY DE-WATERING DEVICES AND STORMWATER DIVERSION PRACTICE. ALL AREAS SURROUNDING THE POND THAT ARE GRADED OR DENUDED DURING CONSTRUCTION MUST BE PLANTED WITH TURF GRASS, NATIVE PLANTINGS, OR OTHER APPROVED METHODS OF SOIL STABILIZATION.
- CLEAR AND STRIP THE PROJECT AREA TO THE DESIRED SUB-GRADE.
- EXCAVATE THE CORE TRENCH AND INSTALL THE SPILLWAY PIPE.
- INSTALL THE RISER STRUCTURE AND ENSURE THE TOP INVERT OF THE OVERFLOW WEIR IS CONSTRUCTED AT THE DESIGN ELEVATION.
- CONSTRUCT THE EMBANKMENT AND ANY INTERNAL BERMS IN 8-12 INCH LIFTS, OR AS DIRECTED BY GEOTECHNICAL RECOMMENDATIONS, AND COMPACT AS REQUIRED WITH APPROPRIATE EQUIPMENT.
- EXCAVATE/GRADE UNTIL THE APPROPRIATE ELEVATION AND DESIRED CONTOURS ARE ACHIEVED FOR THE BOTTOM AND SIDE SLOPES OF THE POND.
- INSTALL OUTLET PROTECTION.
- STABILIZE EXPOSED SOILS WITH TEMPORARY SEED MIXTURES APPROPRIATE FOR THE POND BUFFER. ALL AREAS ABOVE THE NORMAL POOL ELEVATION SHOULD BE PERMANENTLY STABILIZED FOR HYDROSEEDING OR SEEDING OVER STRAW. SEE SHEETS CP-501 THROUGH CP-502 FOR POND PLANTING PLANS.

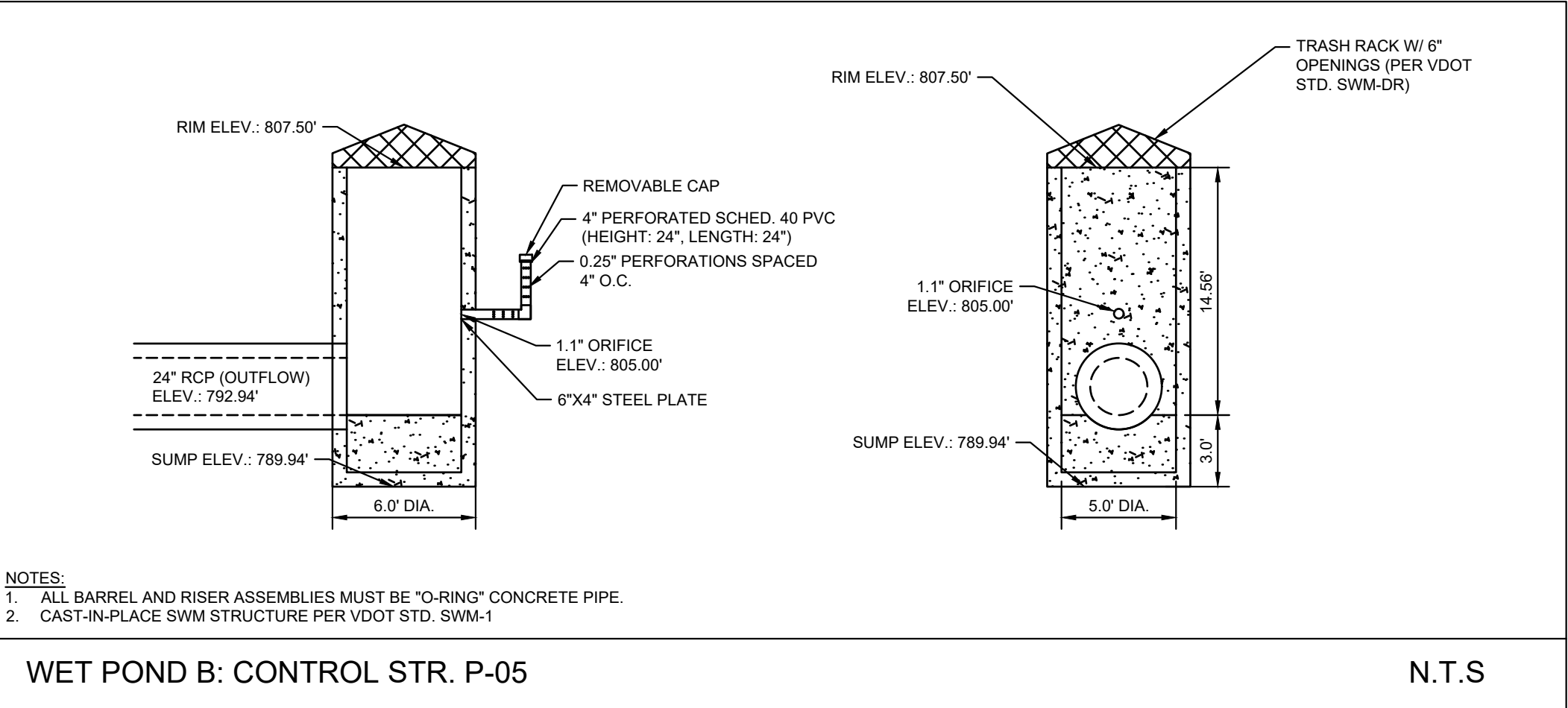
MAINTENANCE PLAN

- FIRST YEAR MAINTENANCE
  - FOR THE FIRST SIX MONTHS FOLLOWING CONSTRUCTION, THE SITE SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED 1/2-INCH OF RAINFALL.
  - THE AQUATIC BENCHES SHOULD BE PLANTED WITH EMERGENT WETLAND SPECIES.
  - INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE POND BUFFER, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER.
  - TREES PLANTED IN THE POND BUFFER NEED TO BE WATERED DURING THE FIRST GROWING SEASON. WATER EVERY 3 DAYS FOR THE FIRST MONTH AND THEN WEEKLY THROUGH THE FIRST GROWING SEASON (APRIL-OCTOBER) DEPENDING ON RAINFALL.
- ANNUAL MAINTENANCE/INSPECTION
  - MEASURE SEDIMENT ACCUMULATION LEVELS IN THE FORE BAY.
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NOTE: BASED ON INSPECTION RESULTS, SPECIFIC MAINTENANCE TASKS WILL BE TRIGGERED. EXAMPLE MAINTENANCE CHECKLISTS FOR WET PONDS CAN BE ACCESSED IN APPENDIX H OF CHAPTER 8 (SECTION 8.5 P-BAS-03 SUBSECTION 7.0)) OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH).

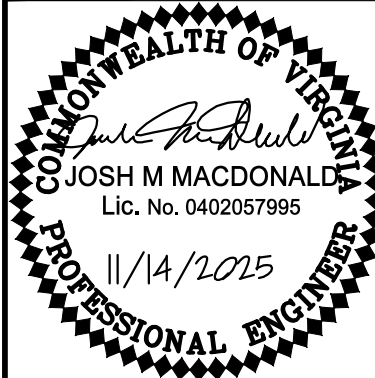
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- FILL MATERIALS MUST BE SUFFICIENTLY PLASTIC TO DEFORM WITHOUT CRACKING.
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- REFER TO ECS FINAL GEOTECHNICAL REPORT FOR EMBANKMENT REQUIREMENTS.



Jacobs

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|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/11/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

STORMWATER POND  
DETAILS - POND B

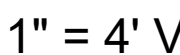
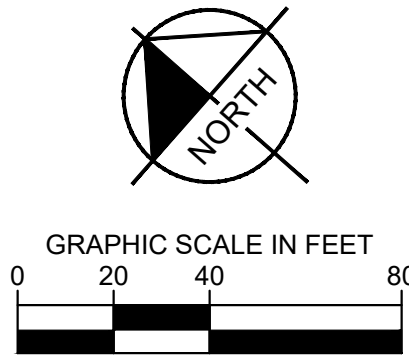
PROJECT HERCULES

APPOMATTOX COUNTY

VA

SHEET NUMBER  
CG-404





TOP OF EMBANKMENT = 770.90

10:1 SIDE SLOPES

100-YR WSE = 770.00'

CREST ELEVATION = 769.35

24.00'

N.T.S.



N.T.



N.T.



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CG-406 STORMWATER POND DETAILS November 05, 2025 04:45:49pm  
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| DESIGN CRITERIA |                         |
|-----------------|-------------------------|
| FLOW PATH       | 0.5 OR MORE             |
| AQUATIC BENCH   | 10' @ 15% MAX           |
| SAFETY BENCH    | 8-15' @ 5%              |
| WETLANDS        | 10% OF TOP BASIN        |
| FOREBAY         | 15% OF TREATMENT VOLUME |

| WET POND C FLOW PATH |     |
|----------------------|-----|
| SHORTEST FLOW PATH   | 309 |
| OVERALL LENGTH       | 309 |
| RATIO                | 1   |

WATER SURFACE ELEVATIONS

|           |         |
|-----------|---------|
| 1 YEAR:   | 767.00' |
| 2 YEAR:   | 767.66' |
| 10 YEAR:  | 768.31' |
| 100 YEAR: | 769.98' |

|                           |       |
|---------------------------|-------|
| FREEBOARD DEPTH REQ'D:    | 1.00' |
| FREEBOARD DEPTH PROVIDED: | 1.02' |

WETLANDS

|               |           |
|---------------|-----------|
| TOP OF BASIN: | 51,767 SF |
|---------------|-----------|

|                    |          |
|--------------------|----------|
| WETLANDS REQ'D:    | 5,177 SF |
| WETLANDS PROVIDED: | 5,200 SF |

POND SIZING INFORMATION

|                            |           |
|----------------------------|-----------|
| DESIGN LEVEL (1 OR 2):     | 2         |
| BOTTOM POND ELEV:          | 760.00'   |
| PERM. POOL ELEV:           | 764.00'   |
| TREATMENT VOLUME REQ'D:    | 52,891 CF |
| TREATMENT VOLUME PROVIDED: | 72,062 CF |
| PERMANENT POOL DEPTH:      | 4.0'      |

|                          |           |
|--------------------------|-----------|
| FOREBAY DEPTH REQ'D:     | 4'        |
| FOREBAY DEPTH PROVIDED:  | 6.0'      |
| FOREBAY VOLUME REQ'D:    | 6,024 CF  |
| FOREBAY VOLUME PROVIDED: | 12,407 CF |

| POND C SEDIMENT FOREBAY |           |              |                         |
|-------------------------|-----------|--------------|-------------------------|
| ELEV.                   | AREA (SF) | STORAGE (CF) | CUMULATIVE STORAGE (CF) |
| 760.00                  | 982       | 0            | 0                       |
| 760.50                  | 1069      | 513          | 513                     |
| 761.00                  | 1159      | 557          | 1070                    |
| 761.50                  | 1253      | 603          | 1673                    |
| 762.00                  | 1350      | 651          | 2342                    |
| 762.50                  | 1451      | 700          | 3024                    |
| 763.00                  | 1556      | 752          | 3776                    |
| 763.50                  | 1930      | 872          | 4647                    |
| 764.00                  | 2343      | 1068         | 5715                    |
| 764.50                  | 3287      | 1408         | 7123                    |
| 765.00                  | 3442      | 1682         | 8805                    |
| 765.50                  | 3601      | 1761         | 10566                   |
| 766.00                  | 3763      | 1841         | 12407                   |

| POND C BUOYANCY CALCULATIONS |        |    |
|------------------------------|--------|----|
| RISER STRUCTURE              |        |    |
| RISER INSIDE DIAMETER        | 5      | FT |
| RISER INSIDE AREA            | 19.6   | SF |
| RISER WALL THICKNESS         | 0.5    | FT |
| RISER OUTSIDE DIAMETER       | 6      | FT |
| RISER OUTSIDE AREA           | 28.3   | SF |
| RISER HEIGHT                 | 7.30   | FT |
| RISER CONCRETE VOLUME        | 63.07  | CF |
| BASE AREA                    | 28.3   | SF |
| BASE HEIGHT                  | 3      | FT |
| BASE VOLUME                  | 84.9   | CF |
| TOTAL CONCRETE VOLUME        | 147.89 | CF |

| VOIDS              |      |    |
|--------------------|------|----|
| 1-5.2" ORIFICE     | 0.05 | CF |
| 1-24" CULVERT      | 1.57 | CF |
| TOTAL VOIDS VOLUME | 1.62 | CF |

|                          |        |       |
|--------------------------|--------|-------|
| TOTAL VOLUME OF CONCRETE | 146.27 | CF    |
| UNIT WEIGHT OF CONCRETE  | 145    | LB/CF |
| CONCRETE FORCE           | 21,208 | LB    |

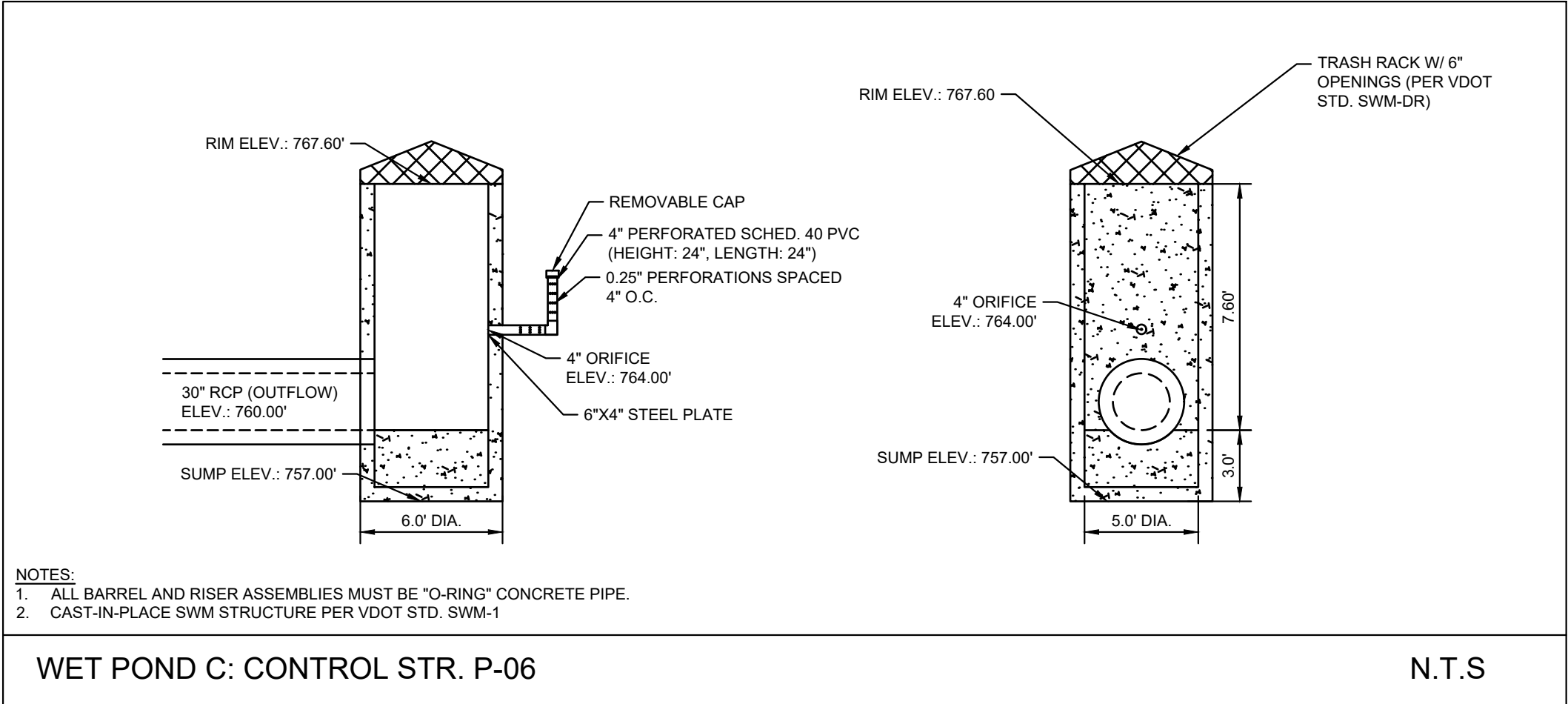
|                           |        |       |
|---------------------------|--------|-------|
| VOLUME OF DISPLACED WATER | 143.34 | CF    |
| UNIT WEIGHT OF WATER      | 62.4   | LB/CF |
| BUOYANT FORCE OF WATER    | 8,944  | LB    |

|                |      |            |
|----------------|------|------------|
| SAFETY FACTOR  | 2.37 | (MIN 1.25) |
| WILL IT FLOAT? | NO   |            |

- WET AND DRY POND SEQUENCE OF CONSTRUCTION:
- USE OF WET POND AS AN E&S CONTROL. INSTALLATION OF THE PERMANENT RISER SHOULD BE INITIATED DURING THE CONSTRUCTION PHASE, AND DESIGN ELEVATIONS SHOULD BE SET WITH FINAL CLEANOUT OF THE SEDIMENT BASIN AND CONVERSION TO THE POST-CONSTRUCTION WET POND IN MIND. APPROPRIATE PROCEDURES SHOULD BE IMPLEMENTED TO PREVENT DISCHARGE OF TURBID WATERS WHEN THE BASIN IS BEING CONVERTED INTO A WET POND.
  - STABILIZE THE DRAINAGE AREA. WET PONDS SHOULD ONLY BE CONSTRUCTED AFTER THE CONTRIBUTING DRAINAGE AREA TO THE POND IS COMPLETELY STABILIZED SINCE THE PROPOSED POND SITE WILL BE USED AS A SEDIMENT BASIN DURING THE CONSTRUCTION PHASE. THE FACILITY WILL BE DEWATERED, DREGGED AND RE-GRADED TO DESIGN DIMENSIONS AFTER THE ORIGINAL SITE CONSTRUCTION IS COMPLETE.
  - ASSEMBLE CONSTRUCTION MATERIALS ON-SITE, MAKE SURE THEY MEET DESIGN SPECIFICATIONS, AND PREPARE ANY STAGING AREAS.
  - INSTALL E&S CONTROLS PRIOR TO CONSTRUCTION, INCLUDING TEMPORARY DE-WATERING DEVICES AND STORMWATER DIVERSION PRACTICE. ALL AREAS SURROUNDING THE POND THAT ARE GRADED OR DENUDED DURING CONSTRUCTION MUST BE PLANTED WITH TURF GRASS, NATIVE PLANTINGS, OR OTHER APPROVED METHODS OF SOIL STABILIZATION.
  - CLEAR AND STRIP THE PROJECT AREA TO THE DESIRED SUB-GRADE.
  - EXCAVATE THE CORE TRENCH AND INSTALL THE SPILLWAY PIPE.
  - INSTALL THE RISER STRUCTURE AND ENSURE THE TOP INVERT OF THE OVERFLOW WEIR IS CONSTRUCTED AT THE DESIGN ELEVATION.
  - CONSTRUCT THE EMBANKMENT AND ANY INTERNAL BERMS IN 8-12 INCH LIFTS, OR AS DIRECTED BY GEOTECHNICAL RECOMMENDATIONS, AND COMPACT AS REQUIRED WITH APPROPRIATE EQUIPMENT.
  - EXCAVATE/GRADE UNTIL THE APPROPRIATE ELEVATION AND DESIRED CONTOURS ARE ACHIEVED FOR THE BOTTOM AND SIDE SLOPES OF THE POND.
  - INSTALL OUTLET PROTECTION.
  - STABILIZE EXPOSED SOILS WITH TEMPORARY SEED MIXTURES APPROPRIATE FOR THE POND BUFFER. ALL AREAS ABOVE THE NORMAL POOL ELEVATION SHOULD BE PERMANENTLY STABILIZED FOR HYDROSEEDING OR SEEDING OVER STRAW. SEE SHEETS CP-501 THROUGH CP-502 FOR POND PLANTING PLANS.

- MAINTENANCE PLAN
- FIRST YEAR MAINTENANCE
    - FOR THE FIRST SIX MONTHS FOLLOWING CONSTRUCTION, THE SITE SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED 1/2-INCH OF RAINFALL.
    - THE AQUATIC BENCHES SHOULD BE PLANTED WITH EMERGENT WETLAND SPECIES.
    - INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE POND BUFFER, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER.
    - TREES PLANTED IN THE POND BUFFER NEED TO BE WATERED DURING THE FIRST GROWING SEASON. WATER EVERY 3 DAYS FOR THE FIRST MONTH AND THEN WEEKLY THROUGH THE FIRST GROWING SEASON (APRIL-OCTOBER) DEPENDING ON RAINFALL.
  - ANNUAL MAINTENANCE/INSPECTION
    - MEASURE SEDIMENT ACCUMULATION LEVELS IN THE FORE BAY.
    - MONITOR THE GROWTH OF WETLAND PLANTS, TREES AND SHRUBS PLANTED. RECORD THE SPECIES AND THEIR APPROXIMATE COVERAGE, AND NOTE THE PRESENCE OF ANY INVASIVE SPECIES.
    - INSPECT THE CONDITION OF STORM WATER INLETS TO THE POND FOR MATERIAL DAMAGE, EROSION OR UNDERCUTTING.
    - INSPECT THE BANKS OF UPSTREAM AND DOWNSTREAM CHANNELS FOR EVIDENCE OF SLOUGHING, ANIMAL BURROWS, BOGGY AREAS, WOODY GROWTH, OR GULLY EROSION THAT MAY UNDERMINE EMBANKMENT INTEGRITY.
    - INSPECT THE POND OUTFALL CHANNEL FOR EROSION, UNDERCUTTING, RIP-RAP DISPLACEMENT, WOODY GROWTH, ETC.
    - INSPECT THE CONDITION OF THE PRINCIPAL SPILLWAY AND RISER FOR EVIDENCE OF SPALLING, JOINT FAILURE, LEAKAGE, CORROSION, ETC.
    - INSPECT THE CONDITION OF ALL TRASH RACKS, REVERSE-SLOPED PIPES, OR FLASHBOARD RISERS FOR EVIDENCE OF CLOGGING, LEAKAGE, DEBRIS ACCUMULATION, ETC.
    - INSPECT MAINTENANCE ACCESS TO ENSURE IT IS FREE OF WOODY VEGETATION, AND CHECK TO SEE WHETHER VALVES, MANHOLES AND LOCKS CAN BE OPENED AND OPERATED.
    - INSPECT INTERNAL AND EXTERNAL SIDE SLOPES OF THE POND FOR EVIDENCE OF SPARSE VEGETATIVE COVER, EROSION, OR SLUMPING AND MAKE NEEDED REPAIRS IMMEDIATELY.
- NOTE: BASED ON INSPECTION RESULTS, SPECIFIC MAINTENANCE TASKS WILL BE TRIGGERED. EXAMPLE MAINTENANCE CHECKLISTS FOR WET PONDS CAN BE ACCESSED IN APPENDIX H OF CHAPTER 8 (SECTION 8.5 P-BAS-03 SUBSECTION 7.0)) OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH).

- EARTHEN EMBANKMENT NOTES
- THE EARTHEN EMBANKMENT MUST BE DESIGNED WITH CONSIDERATION GIVEN TO: SPECIFIC SITE AND FOUNDATION CONDITIONS, CONSTRUCTION MATERIAL CHARACTERISTICS, PURPOSE OF THE IMPOUNDMENT, AND HAZARD POTENTIAL ASSOCIATED WITH THE PARTICULAR SITE OR IMPOUNDMENT.
  - THE MATERIAL USED FOR THE EMBANKMENT MUST BE SUFFICIENTLY IMPERVIOUS TO PROVIDE AN ADEQUATE WATER BARRIER.
  - THE EARTHEN EMBANKMENT MUST BE DESIGNED TO BE STABLE AGAINST ANY FORCE CONDITION OR COMBINATION OF FORCE CONDITIONS THAT MAY DEVELOP DURING THE LIFE OF THE STRUCTURE.
  - CHARACTER AND DISTRIBUTION OF THE FOUNDATION MATERIAL MUST BE CONSIDERED FOR ITS SHEAR STRENGTH, COMPRESSIBILITY, AND PERMEABILITY.
  - FILL MATERIALS MUST BE SUFFICIENTLY PLASTIC TO DEFORM WITHOUT CRACKING.
  - THE MINIMUM REQUIRED DENSITY OF THE FILL MATERIAL IS 95% OF MAXIMUM.
  - GRAVEL BEDDING IS NOT ALLOWED UNDER ANY CONDUITS THROUGH THE EMBANKMENT.
  - REFER TO ECS FINAL GEOTECHNICAL REPORT FOR EMBANKMENT REQUIREMENTS.



Jacobs

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|             |            |       |          |             |     |          |     |            |     |
|-------------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | DATE       | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
| 113706001   | 11/11/2025 |       |          |             |     |          |     |            |     |

STORMWATER POND  
DETAILS - POND C

PROJECT HERCULES

APPOMATTOX COUNTY

VA

SHEET NUMBER  
CG-406



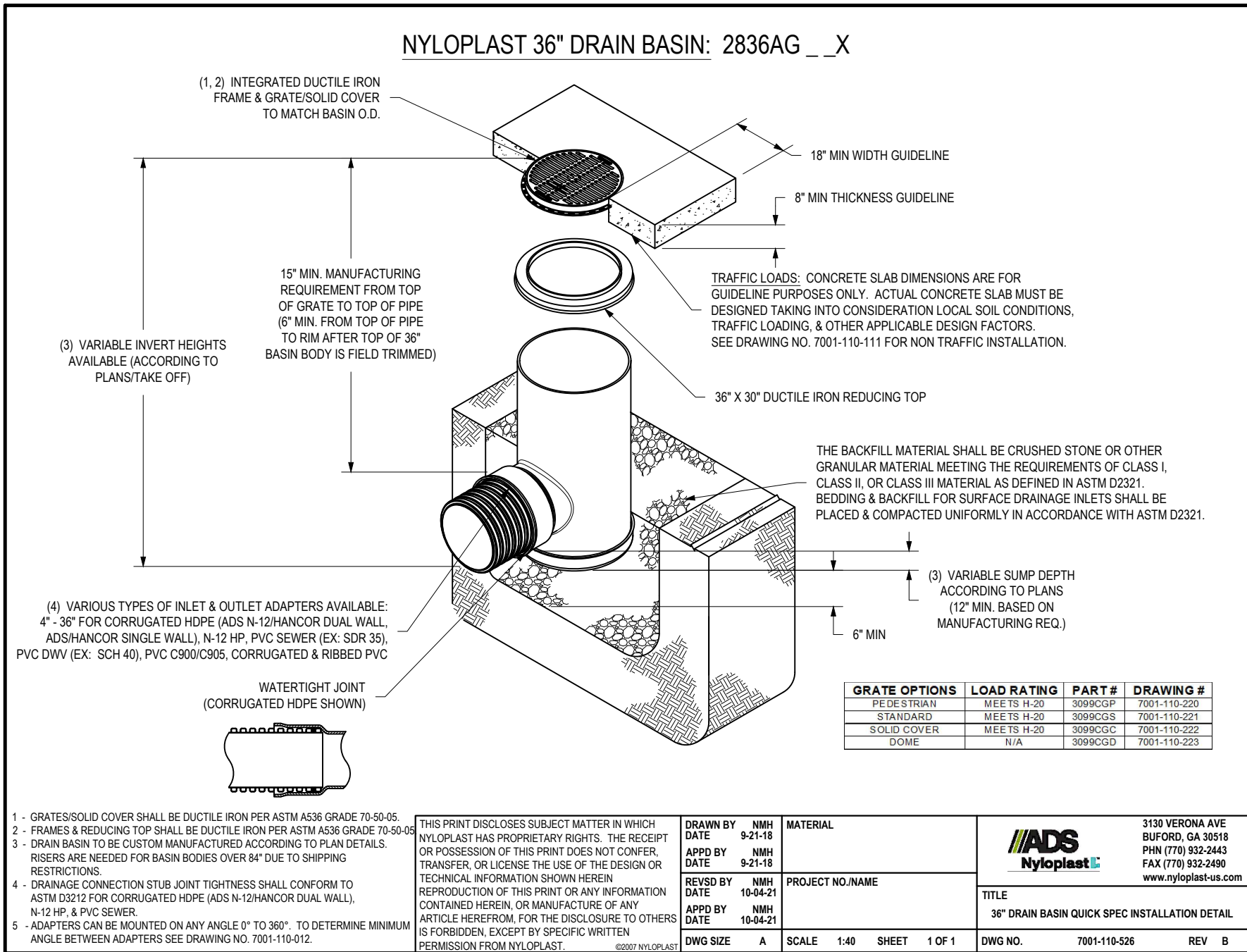
| STRUCTURE TABLE |                                                                   |        |        |
|-----------------|-------------------------------------------------------------------|--------|--------|
| STRUCTURE NAME  | DESCRIPTION                                                       | RIM    | HEIGHT |
| A100            | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH                          | 736.57 | 19.65  |
| A101            | VDOT STD. DI-3B (L=8") WITH SAFETY BENCH                          | 758.59 | 22.67  |
| A103            | VDOT STD. DI-3C (L=6") WITH SAFETY BENCH                          | 757.64 | 14.62  |
| A104            | VDOT STD. DI-3B (L=6") WITH SAFETY BENCH                          | 758.50 | 14.54  |
| A105            | VDOT STD. DI-3B (L=8") WITH SAFETY BENCH                          | 757.20 | 10.95  |
| A106            | VDOT STD. DI-3B (L=8")                                            | 754.56 | 7.41   |
| A106A           | VDOT STD MH-1                                                     | 755.25 | 6.71   |
| A107            | VDOT STD. DI-3C (L=20")                                           | 753.65 | 5.81   |
| A108            | VDOT STD. DI-3B (L=6")                                            | 755.76 | 5.88   |
| A109            | VDOT STD. DI-3B (L=6")                                            | 758.22 | 5.93   |
| A110            | VDOT STD. DI-3B (L=8")                                            | 758.57 | 5.54   |
| AR100           | 24" BEND                                                          |        |        |
| AR101           | 24" BEND                                                          |        |        |
| AR102           | DBHHVF-24S-800 FILTER                                             |        |        |
| AR103           | VDOT STD MH-1 (D=48")                                             | 756.56 | 7.60   |
| AR104           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 10.23  |
| AR105           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 9.59   |
| AR106           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 8.95   |
| AR107           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 8.31   |
| AR108           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 7.76   |

| STRUCTURE TABLE |                        |        |        |
|-----------------|------------------------|--------|--------|
| STRUCTURE NAME  | DESCRIPTION            | RIM    | HEIGHT |
| C105            | VDOT STD. DI-3B (L=8") | 838.32 | 5.60   |
| C105A           | VDOT STD. DI-3B (L=8") | 838.60 | 4.65   |
| C106            | VDOT STD. DI-3B (L=6") | 840.76 | 6.89   |
| C106A           | VDOT STD. DI-3B (L=6") | 840.85 | 4.30   |
| C107            | VDOT STD. DI-3B (L=8") | 840.70 | 5.51   |
| CU100           | VDOT STD. ES-1         | 773.17 | 2.27   |
| CU101           | VDOT STD. MH-1 (D=48") | 773.80 | 3.28   |
| CU102           | VDOT STD. ES-1         | 768.16 | 3.08   |
| CU200           | VDOT STD. ES-1         | 800.35 | ???    |
| CU201           | VDOT STD MH-1          | 803.72 | 7.77   |
| CU202           | VDOT STD. ES-1         | 787.68 | 3.08   |
| P-01            | VDOT STD. ES-1         | 714.35 | 2.79   |
| P-02            | VDOT STD. ES-1         | 807.95 | 6.62   |
| P-03            | VDOT STD. ES-1         | 787.73 | 6.08   |
| P-04            | VDOT STD. MH-1 (D=48") | 713.50 | 6.50   |
| P-05            | VDOT STD. MH-1 (D=48") | 807.50 | 14.56  |
| P-06            | VDOT STD. MH-1 (D=48") | 767.60 | 7.60   |
| P-07            | VDOT STD. MH-1         | 764.71 | 6.94   |
| PO-01           | VDOT STD. ES-1         | 708.68 | 6.08   |
| PO-02           | VDOT STD. MH-1 (D=48") | 711.71 | 5.72   |

| STRUCTURE TABLE |                                                                   |        |        |
|-----------------|-------------------------------------------------------------------|--------|--------|
| STRUCTURE NAME  | DESCRIPTION                                                       | RIM    | HEIGHT |
| AR109           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 7.12   |
| AR110           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 6.48   |
| AR111           | 36" NYLOPLAST DRAIN BASIN W/ 24" PEDESTRIAN GRATE (TRAFFIC RATED) | 759.90 | 6.00   |
| B101            | VDOT STD. DI-3B (L=6") WITH SAFETY BENCH                          | 757.37 | 17.35  |
| B102            | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH                          | 752.40 | 10.45  |
| B104-1          | VDOT STD. DI-3B (L=10")                                           | 752.28 | 9.89   |
| B104-2          | VDOT STD. DI-3C (L=10")                                           | 752.16 | 9.62   |
| B104-3          | VDOT STD. DI-3B (L=10")                                           | 752.38 | 9.66   |
| B106            | VDOT STD. DI-3B (L=14") WITH SAFETY BENCH                         | 754.42 | 10.94  |
| B107            | VDOT STD. DI-3A (L=6") WITH SAFETY BENCH                          | 756.67 | 12.35  |
| B108            | VDOT STD. DI-3B (L=16")                                           | 754.42 | 9.16   |
| B109-1          | VDOT STD DI-3B (L=12")                                            | 752.40 | 6.04   |
| B109-2          | VDOT STD. DI-3C (L=12")                                           | 752.18 | 5.76   |
| B109-3          | VDOT STD DI-3B (L=12")                                            | 752.40 | 5.82   |
| B110            | VDOT STD. DI-3B (L=16")                                           | 753.53 | 6.56   |
| B110A           | VDOT STD. DI-3B (L=10")                                           | 758.95 | 7.50   |
| B110B           | VDOT STD. DI-3B (L=6")                                            | 759.08 | 4.74   |
| B111            | VDOT STD. DI-3B (L=10")                                           | 757.20 | 5.62   |
| B111A           | VDOT STD. DI-3B (L=10")                                           | 758.00 | 4.43   |
| B112            | VDOT STD. DI-3B (L=10") WITH SAFETY BENCH                         | 767.76 | 7.86   |

| STRUCTURE TABLE |                                          |        |        |
|-----------------|------------------------------------------|--------|--------|
| STRUCTURE NAME  | DESCRIPTION                              | RIM    | HEIGHT |
| PO-2            | VDOT STD. ES-1                           | 784.48 | ???    |
| R102            | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH | 760.85 | 13.10  |
| R102A           | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH | 760.85 | 11.31  |
| R102B           | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH |        |        |
| RAIN 1          | RAIN HARVEST                             |        |        |
| RAIN 2          | RAIN HARVEST                             | 750.94 | ???    |
| S101-1          | VDOT STD. DI-5                           | 777.26 | 9.50   |
| S101-2          | VDOT STD. DI-5                           | 777.40 | 9.54   |
| S102            | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH | 787.29 | 16.40  |
| S103            | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH | 787.59 | 15.57  |
| S104            | VDOT STD. DI-1 WITH SAFETY BENCH         | 786.90 | 14.19  |
| S105            | VDOT STD. DI-1 WITH SAFETY BENCH         | 789.20 | 15.47  |
| S106            | VDOT STD. DI-1 WITH SAFETY BENCH         | 787.80 | 12.88  |
| S107            | VDOT STD. MH-1 (D=48") WITH SAFETY BENCH | 789.34 | 13.47  |
| S108            | VDOT STD. DI-5                           | 786.41 | 9.64   |
| S109            | VDOT STD. DI-5                           | 786.83 | 8.36   |
| S110            | VDOT STD. DI-5                           |        |        |
| S111            | VDOT STD. ES-1                           | 758.78 | 6.08   |

| STRUCTURE TABLE |                                           |        |        |
|-----------------|-------------------------------------------|--------|--------|
| STRUCTURE NAME  | DESCRIPTION                               | RIM    | HEIGHT |
| B112A           | VDOT STD. DI-3B (L=10")                   | 768.45 | 4.95   |
| B113            | VDOT STD. DI-3B (L=10") WITH SAFETY BENCH | 784.05 | 6.01   |
| B113A           | VDOT STD. DI-3B (L=10")                   | 784.05 | 3.57   |
| B113M           | VDOT STD. MH-1 (D=48")                    | 780.54 | 13.42  |
| B114            | VDOT STD. DI-3B (L=6")                    | 792.72 | 5.81   |
| B114A           | VDOT STD. DI-3B (L=6")                    | 792.75 | 4.87   |
| B115            | VDOT STD. DI-3B (L=8")                    | 797.25 | 6.70   |
| B115A           | VDOT STD. DI-3B (L=8")                    | 797.25 | 5.16   |
| B116            | VDOT STD. DI-3B (L=10")                   | 807.30 | 9.40   |
| B117            | VDOT STD. DI-3B (L=10")                   | 807.30 | 4.42   |
| C100            | VDOT STD. MH-1                            | 811.99 | 6.73   |
| C101            | VDOT STD. MH-1 WITH SAFETY BENCH          | 825.02 | 17.56  |
| C102            | VDOT STD. MH-1 WITH SAFETY BENCH          | 832.44 | 11.80  |
| C102A           | VDOT STD. DI-3B (L=10")                   | 827.53 | 4.49   |
| C102B           | VDOT STD. DI-3B (L=10")                   | 827.67 | 3.84   |
| C103            | VDOT STD. MH-1 (D=48")                    | 836.93 | 8.33   |
| C103A           | VDOT STD. DI-3B (L=6")                    | 837.23 | 4.24   |
| C104            | VDOT STD. DI-3B (L=6")                    | 837.72 | 8.12   |
| C104A           | VDOT STD. DI-3C (L=12")                   | 835.17 | 4.77   |
| C104B           | VDOT STD. DI-3B (L=6")                    | 839.33 | 5.34   |



| STORM PIPES     |        |             |       |           |            |
|-----------------|--------|-------------|-------|-----------|------------|
| PIPE SEGMENT    | LENGTH | DESCRIPTION | SLOPE | INV. (IN) | INV. (OUT) |
| A100 TO P-01    | 110 LF | 30" RCP     | 5.00% | 716.92    | 711.41     |
| A101 TO A100    | 110 LF | 30" RCP     | 5.00% | 735.92    | 730.40     |
| A103 TO A101    | 70 LF  | 30" RCP     | 0.60% | 743.31    | 742.89     |
| A104 TO A103    | 141 LF | 30" RCP     | 0.60% | 744.25    | 743.41     |
| A105 TO A104    | 365 LF | 30" RCP     | 0.60% | 746.54    | 744.35     |
| A106 TO A105    | 133 LF | 30" RCP     | 0.60% | 747.44    | 746.64     |
| A106A TO A106   | 57 LF  | 24" RCP     | 1.05% | 748.54    | 747.94     |
| A107 TO A106    | 32 LF  | 18" RCP     | 0.60% | 748.13    | 747.94     |
| A108 TO A107    | 103 LF | 15" RCP     | 1.06% | 750.08    | 748.98     |
| A109 TO A108    | 110 LF | 15" RCP     | 2.11% | 752.50    | 750.18     |
| A110 TO A109    | 22 LF  | 15" RCP     | 2.77% | 753.22    | 752.60     |
| AR100 TO A106A  | 10 LF  | 24" HDPE    | 0.50% | 750.53    | 750.48     |
| AR101 TO AR100  | 60 LF  | 24" HDPE    | 0.50% | 750.83    | 750.53     |
| AR102 TO AR101  | 34 LF  | 24" HDPE    | 0.50% | 751.00    | 750.83     |
| AR102 TO RAIN 1 | 7 LF   | 24" HDPE    | 0.00% | 748.76    | 748.76     |
| AR103 TO AR102  | 12 LF  | 24" HDPE    | 0.75% | 748.96    | 748.87     |
| AR104 TO AR103  | 95 LF  | 24" HDPE    | 0.75% | 749.67    | 748.96     |
| AR105 TO AR104  | 72 LF  | 24" HDPE    | 0.75% | 750.31    | 749.77     |

| STORM PIPES      |        |             |       |           |            |
|------------------|--------|-------------|-------|-----------|------------|
| PIPE SEGMENT     | LENGTH | DESCRIPTION | SLOPE | INV. (IN) | INV. (OUT) |
| AR106 TO AR105   | 72 LF  | 24" HDPE    | 0.75% | 750.95    | 750.41     |
| AR107 TO AR106   | 72 LF  | 24" HDPE    | 0.75% | 751.59    | 751.05     |
| AR108 TO AR107   | 60 LF  | 24" HDPE    | 0.75% | 752.14    | 751.69     |
| AR109 TO AR108   | 72 LF  | 24" HDPE    | 0.75% | 752.78    | 752.24     |
| AR110 TO AR109   | 72 LF  | 24" HDPE    | 0.75% | 753.42    | 752.88     |
| AR111 TO AR110   | 50 LF  | 24" HDPE    | 0.75% | 753.90    | 753.52     |
| B101 TO A101     | 364 LF | 36" RCP     | 0.60% | 740.31    | 738.12     |
| B102 TO B101     | 257 LF | 36" RCP     | 0.60% | 741.95    | 740.41     |
| B104-1 TO B102   | 58 LF  | 36" RCP     | 0.60% | 742.39    | 742.05     |
| B104-2 TO B104-1 | 10 LF  | 36" RCP     | 0.46% | 742.54    | 742.49     |
| B104-3 TO B104-2 | 11 LF  | 36" RCP     | 0.73% | 742.72    | 742.64     |
| B106 TO B104-3   | 110 LF | 36" RCP     | 0.60% | 743.48    | 742.82     |
| B107 TO B106     | 124 LF | 36" RCP     | 0.60% | 744.32    | 743.58     |
| B108 TO B107     | 122 LF | 30" RCP     | 0.60% | 745.56    | 744.82     |
| B109-1 TO B108   | 117 LF | 30" RCP     | 0.60% | 746.35    | 745.66     |
| B109-2 TO B109-1 | 11 LF  | 30" RCP     | 0.61% | 746.42    | 746.35     |
| B109-3 TO B109-2 | 11 LF  | 18" RCP     | 0.60% | 746.58    | 746.52     |
| B110 TO B109-3   | 65 LF  | 18" RCP     | 0.60% | 746.97    | 746.58     |

| STORM PIPES    |        |             |        |           |            |
|----------------|--------|-------------|--------|-----------|------------|
| PIPE SEGMENT   | LENGTH | DESCRIPTION | SLOPE  | INV. (IN) | INV. (OUT) |
| B110A TO B110  | 207 LF | 15" RCP     | 1.56%  | 751.46    | 748.22     |
| B110B TO B110A | 157 LF | 15" RCP     | 1.78%  | 754.34    | 751.56     |
| B111 TO B110   | 149 LF | 15" RCP     | 2.42%  | 751.58    | 747.97     |
| B111A TO B111  | 44 LF  | 15" RCP     | 3.00%  | 753.76    | 752.44     |
| B112 TO B111   | 250 LF | 15" RCP     | 3.22%  | 759.90    | 751.83     |
| B112A TO B112  | 46 LF  | 15" RCP     | 2.00%  | 763.50    | 762.58     |
| B113 TO B113M  | 55 LF  | 15" RCP     | 6.00%  | 778.04    | 774.72     |
| B113A TO B113  | 44 LF  | 15" RCP     | 2.00%  | 780.48    | 779.60     |
| B113M TO B112  | 208 LF | 15" RCP     | 3.42%  | 767.11    | 760.00     |
| B114 TO B113   | 235 LF | 15" RCP     | 3.73%  | 786.90    | 778.14     |
| B114A TO B114  | 44 LF  | 15" RCP     | 2.00%  | 787.89    | 787.00     |
| B115 TO B114   | 236 LF | 15" RCP     | 1.50%  | 790.54    | 787.01     |
| B115A TO B115  | 44 LF  | 15" RCP     | 2.00%  | 792.09    | 791.21     |
| B116 TO B115   | 269 LF | 15" RCP     | 2.70%  | 797.90    | 790.64     |
| B117 TO B116   | 44 LF  | 15" RCP     | 3.00%  | 802.88    | 801.56     |
| C100 TO P-02   | 26 LF  | 30" RCP     | 1.00%  | 805.26    | 805.00     |
| C101 TO C100   | 88 LF  | 30" RCP     | 2.38%  | 807.45    | 805.36     |
| C102 TO C101   | 21 LF  | 30" RCP     | 10.00% | 820.64    | 818.57     |

| STORM PIPES    |        |             |       |           |            |
|----------------|--------|-------------|-------|-----------|------------|
| PIPE SEGMENT   | LENGTH | DESCRIPTION | SLOPE | INV. (IN) | INV. (OUT) |
| C102A TO C102  | 90 LF  | 15" RCP     | 1.27% | 823.04    | 821.89     |
| C102B TO C102A | 44 LF  | 15" RCP     | 2.00% | 824.02    | 823.14     |
| C103 TO C102   | 194 LF | 24" RCP     | 2.89% | 828.60    | 822.98     |
| C103A TO C103  | 62 LF  | 15" RCP     | 2.00% | 832.99    | 831.74     |
| C104 TO C103   | 106 LF | 24" RCP     | 0.85% | 829.60    | 828.70     |
| C104A TO C104  | 118 LF | 18" RCP     | 0.59% | 830.40    | 829.70     |
| C104B TO C104  | 150 LF | 15" RCP     | 1.00% | 833.99    | 832.50     |
| C105 TO C104   | 210 LF | 18" RCP     | 1.13% | 832.72    | 830.36     |
| C105A TO C105  | 86 LF  | 15" RCP     | 1.15% | 833.95    | 832.97     |
| C106 TO C105   | 151 LF | 15" RCP     | 0.59% | 833.86    | 832.97     |
| C106A TO C106  | 97 LF  | 15" RCP     | 1.00% | 836.55    | 835.58     |
| C107 TO C106   | 119 LF | 15" RCP     | 1.04% | 835.19    | 833.96     |
| CU100 TO CU101 | 7 LF   | 24" RCP     | 2.50% | 770.80    | 770.61     |
| CU101 TO CU102 | 120 LF | 24" RCP     | 3.94% | 770.51    | 765.79     |
| CU201 TO CU200 | 22 LF  | 24" RCP     | 8.62% | 796.05    | 797.97     |
| CU201 TO CU202 | 123 LF | 24" RCP     | 8.69% | 795.95    | 785.31     |
| P-04 TO PO-02  | 180 LF | 30" RCP     | 0.51% | 707.00    | 706.09     |
| P-06 TO P-07   | 279 LF | 30" RCP     | 0.80% | 760.00    | 757.77     |

| STORM PIPES      |        |             |        |           |            |
|------------------|--------|-------------|--------|-----------|------------|
| PIPE SEGMENT     | LENGTH | DESCRIPTION | SLOPE  | INV. (IN) | INV. (OUT) |
| P-07 TO S111     | 68 LF  | 30" RCP     | 2.70%  | 757.67    | 755.84     |
| P-02 TO P-05     | 108 LF | 24" RCP     | 10.00% | 782.10    | 792.94     |
| PQ-02 TO PQ-01   | 50 LF  | 30" RCP     | 0.51%  | 705.99    | 705.74     |
| R102 TO B107     | 283 LF | 24" RCP     | 1.09%  | 748.00    | 745.12     |
| R102A TO R102    | 226 LF | 24" RCP     | 0.64%  | 749.54    | 748.10     |
| R102B TO R102    | 240 LF | 24" RCP     | 0.60%  | 749.54    | 748.10     |
| RAIN 2 TO A106A  | 9 LF   | 24" HDPE    | 1.40%  | 748.76    | 748.64     |
| S101-1 TO P-03   | 94 LF  | 24" RCP     | 3.77%  | 767.76    | 764.21     |
| S101-2 TO S101-1 | 5 LF   | 36" RCP     | 0.50%  | 767.86    | 767.83     |
| S102 TO S101-2   | 45 LF  | 36" RCP     | 6.74%  | 770.89    | 767.86     |
| S102 TO S102     | 173 LF | 36" RCP     | 0.60%  | 772.02    | 770.99     |
| S104 TO S103     | 97 LF  | 36" RCP     | 0.60%  | 772.71    | 772.13     |
| S105 TO S104     | 153 LF | 36" RCP     | 0.60%  | 773.73    | 772.81     |
| S106 TO S105     | 182 LF | 36" RCP     | 0.60%  | 774.92    | 773.83     |
| S107 TO S106     | 141 LF | 36" RCP     | 0.60%  | 775.87    | 775.02     |
| S108 TO S107     | 134 LF | 36" RCP     | 0.60%  | 776.77    | 775.97     |
| S109 TO S108     | 267 LF | 36" RCP     | 0.60%  | 778.47    | 776.87     |
| S110 TO S109     | 300 LF | 36" RCP     | 0.60%  | 780.37    | 778.57     |



| PROJECT INFORMATION              |                                                                |
|----------------------------------|----------------------------------------------------------------|
| ENGINEERED<br>PRODUCT<br>MANAGER | JIM CLARK<br>240.463.0124<br>JIM.CLARK@ADSPIPE.COM             |
| ADS SALES REP                    | ERIC CZERWINSKI<br>540.319.0903<br>ERIC.CZERWINSKI@ADSPIPE.COM |
| PROJECT NO.                      | S426057                                                        |



## APPOMATTOX PROJECT HERCULES, BUILDING 1

APPOMATTOX PROJECT HERCULES, BUILDING 1

### ADS HP RETENTION/DETENTION PIPE SYSTEM SPECIFICATION

THIS SPECIFICATION DESCRIBES ADS HP RETENTION/DETENTION PIPE SYSTEMS FOR USE IN NON-PRESSURE, GRAVITY-FLOW STORM WATER COLLECTION SYSTEMS UTILIZING ADS HP PIPE PRODUCTS AND A CONTINUOUS OUT FALL STRUCTURE.

#### PIPE REQUIREMENTS

ADS RETENTION/DETENTION SYSTEMS MAY UTILIZE ANY OF THE VARIOUS PIPE PRODUCTS BELOW:

- HP STORM PIPE SHALL MEET ASTM F2881
  - SAWITTE HP PIPE SHALL MEET ASTM F2764
- ALL PRODUCTS SHALL HAVE A SMOOTH INTERIOR AND EITHER ANNULAR EXTERIOR CORRUGATIONS OR SMOOTH EXTERIOR WITH ANNULAR INNER CORRUGATIONS. PRODUCT-SPECIFIC PIPE SPECIFICATIONS ARE AVAILABLE IN THE DRAINAGE HANDBOOK SECTION 1 "SPECIFICATIONS".

#### JOINT PERFORMANCE

HP PIPE PRODUCTS PIPE SHALL BE JOINED USING A BELL AND SPIGOT JOINT. THE JOINT SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. SPIGOTS SHALL HAVE GASKETS MEETING THE REQUIREMENTS OF ASTM F477. 12-60 INCH (300-1500 mm) DIAMETERS SHALL HAVE A BELL REINFORCED WITH A POLYMER COMPOSITE BAND. THE BELL TOLERANCE DEVICE SHALL BE INSTALLED BY THE MANUFACTURER.

PIPE AND FITTING CONNECTIONS SHALL UTILIZE A SPUN-ON, WELDED OR INTEGRAL BELL AND SPIGOT. DETENTION SYSTEMS ARE SUBJECT TO GREATER LEAKAGE THAN TYPICAL STORM SOWER APPLICATIONS AND THEREFORE ARE NOT APPROPRIATE FOR APPLICATIONS REQUIRING LONG-TERM FLUID CONTAINMENT OR HYDROSTATIC PRESSURE. FOR ADDITIONAL DETAILS REFER TO TECHNICAL NOTE 7.01 "RAINWATER HARVESTING".

#### FITTINGS

FITTINGS SHALL CONFORM TO ASTM F2881 OR F2764 FOR APPLICABLE PIPE TYPE AND DIAMETERS. CUSTOM FITTINGS ARE AVAILABLE AND MAY REQUIRE SPECIAL INSTALLATION CRITERION.

#### INSTALLATION

INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS RECOMMENDED INSTALLATION GUIDELINES, WITH THE EXCEPTION THAT MINIMUM COVER IN NON-TRAFFIC AREAS FOR 12-60 INCH (300-1500 mm) DIAMETERS SHALL BE 1 FT (0.3 m). MINIMUM COVER IN TRAFFICKED AREAS FOR 12-36 INCH (300-900 mm) DIAMETERS SHALL BE 1 FT (0.3 m) AND FOR 42-60 INCH (1065-1500 mm) DIAMETERS, THE MINIMUM COVER SHALL BE 2 FT (0.6 m). BACKFILL SHALL CONSIST OF CLASS I (COMPACTED), OR CLASS II (MINIMUM 90% SDP) MATERIAL, WITH THE EXCEPTION THAT 60 INCH (1500 mm) SYSTEMS SHALL USE CLASS I MATERIAL ONLY. MINIMUM COVER HEIGHTS DO NOT ACCOUNT FOR PIPE BUOYANCY. REFER TO ADS TECHNICAL NOTE 5.05 "PIPE FLUTATION" FOR BUOYANCY DESIGN CONSIDERATIONS. MAXIMUM COVER OVER SYSTEM USING STANDARD BACKFILL IS 8 FT (2.4 m). CONTACT A REPRESENTATIVE WHEN MAXIMUM FILL HEIGHT MAY BE EXCEEDED.

ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

#### NOTES:

- ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS, INLETS AND OUTLETS, SHALL BE VERIFIED BY THE ENGINEER PRIOR TO FABRICATION.
- IN SITUATIONS WHERE A FINE-GRAINED BACKFILL MATERIAL IS USED ADJACENT TO THE PIPE SYSTEM, AND ESPECIALLY INVOLVING GROUND WATER CONDITIONS, CONSIDERATION SHOULD BE GIVEN TO THE USE OF GASKETED PIPE JOINTS. AT THE VERY LEAST THE PIPE JOINTS SHOULD BE WRAPPED IN A SUITABLE, NON-WOVEN GEOTEXTILE FABRIC TO PREVENT INFILTRATION OF FINES INTO THE PIPE SYSTEM.
- CONSIDERATION FOR CONSTRUCTION EQUIPMENT LOADS MUST BE TAKEN INTO ACCOUNT.
- ALL PIPE DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.
- ALL RISERS TO BE FIELD EXTENDED OR TRIMMED TO FINAL GRADE.

THE UNDERSIGNED HEREBY APPROVES THE ATTACHED PAGES.

CUSTOMER DATE

### BILL OF MATERIALS

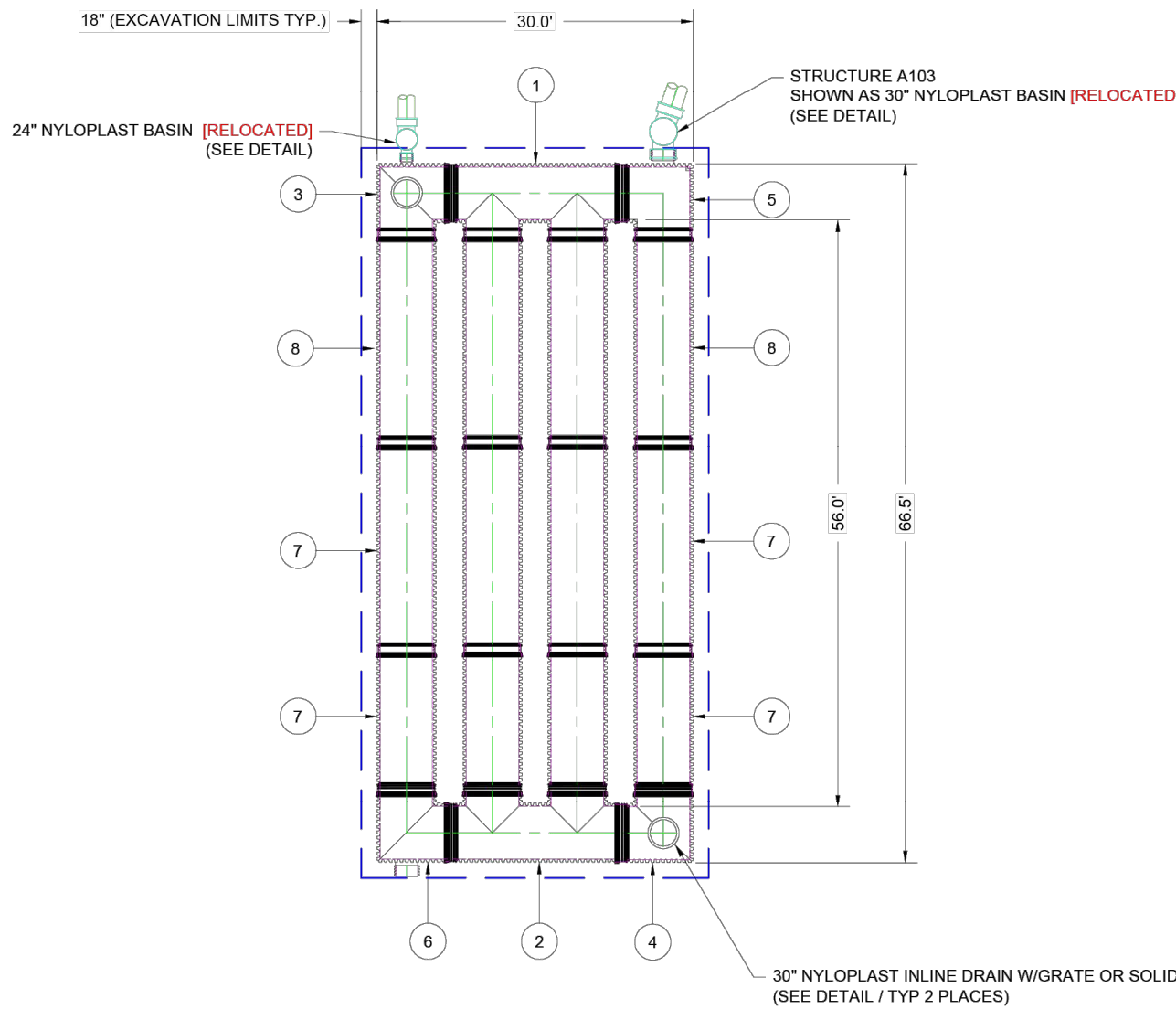
\*THE COMPONENTS AND QUANTITIES LISTED HEREIN ARE NOT INTENDED TO BE A COMPREHENSIVE MATERIAL LIST. EXTRA COMPONENTS, NOT LISTED HEREIN, MAY BE NECESSARY TO COMPLETE THE CONSTRUCTION OF THE SYSTEM.

| ITEM | QTY.            | PART #        | DESCRIPTION                   | MATERIAL     | VENDOR | NOTE       |
|------|-----------------|---------------|-------------------------------|--------------|--------|------------|
| 1    | 1               | 6052AN65BP    | 60" HP DW DOUBLE MANIFOLD TEE | PP           | ADS    | SEE DETAIL |
| 2    | 1               | 6052AN65GP    | 60" HP DW DOUBLE MANIFOLD TEE | PP           | ADS    | SEE DETAIL |
| 3    | 1               | BEND-1        | 60" X 90" HP DW MANIFOLD BEND | PP           | ADS    | SEE DETAIL |
| 4    | 1               | BEND-2        | 60" X 90" HP DW MANIFOLD BEND | PP           | ADS    | SEE DETAIL |
| 5    | 1               | 6098AN65BBP-1 | 60" X 90" HP DW MANIFOLD BEND | PP           | ADS    | SEE DETAIL |
| 5-2  | 1               | 2406ANP       | 24" HP DW STUB                | PP           | ADS    | COMPONENT  |
| 6    | 1               | 6098AN65GGP-1 | 60" X 90" HP DW MANIFOLD BEND | PP           | ADS    | SEE DETAIL |
| 6-2  | 1               | 2406ANP       | 24" HP DW STUB                | PP           | ADS    | COMPONENT  |
| 7    | 4               | STICK-1       | 60" HP DW PIPE STICK : SOLID  | PP           | ADS    | SEE DETAIL |
| 8    | 8               | 60650020IBPL1 | 60" HP DW PIPE STICK : SOLID  | PP           | ADS    | WTIB       |
| 1    | TBD BY ENGINEER |               | ADS GEOTEXTILE FABRIC         | AS SPECIFIED | ADS    | AS NEEDED  |
| 2    | 2730AG          |               | 30" NYLOPLAST INLINE DRAIN    | AS SPECIFIED | ADS    | SEE DETAIL |
| 1    | 2824AG          |               | 24" NYLOPLAST DRAIN BASIN     | AS SPECIFIED | ADS    | SEE DETAIL |
| 1    | 2830AG          |               | 30" NYLOPLAST DRAIN BASIN     | AS SPECIFIED | ADS    | SEE DETAIL |
| 1    | AS SPECIFIED    |               | ADS GEOTEXTILE FABRIC         | AS SPECIFIED | ADS    | AS NEEDED  |

#### NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE PIPE TO THE RETAINING WALL AND CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON THE RETAINING WALL'S INTEGRITY.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 30" (860 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- ALL CISTERN CONNECTIONS SHALL ALSO BE WRAPPED WITH A MARMAC COUPLER FOR POLYPROPYLENE PIPE.

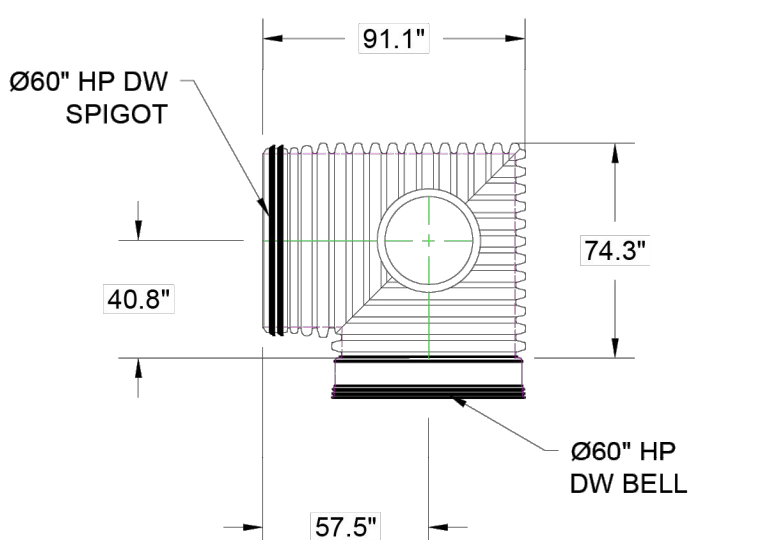
**NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



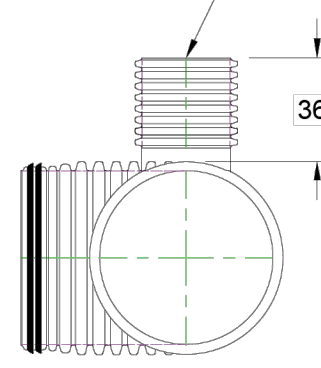
ADS GEOTEXTILE FABRIC  
(IF REQUIRED BY SITE DESIGN ENGINEER)

|                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AVALO CARMEL CHURCH<br>BUILDING A & B<br>RUTHER GLEN, VA                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                            |
| DATE: 08-29-24                                                                                                                                                                                                                                                                                             | DRAWN: LAH                                                                                                                                                                                                                                                                                                 |
| PROJECT #:                                                                                                                                                                                                                                                                                                 | PROJECT #:                                                                                                                                                                                                                                                                                                 |
| DESCRIPTION:                                                                                                                                                                                                                                                                                               | DESCRIPTION:                                                                                                                                                                                                                                                                                               |
| EXPANDED STORAGE, ADDED NYLO BARS                                                                                                                                                                                                                                                                          | EXPANDED STORAGE, ADDED NYLO BARS                                                                                                                                                                                                                                                                          |
| THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS SPECIFIED ARE ALL ASSOCIATED DETAILS MEET ALL APPLICABLE CODE, REGULATORY, AND PROJECT REQUIREMENTS. | THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS SPECIFIED ARE ALL ASSOCIATED DETAILS MEET ALL APPLICABLE CODE, REGULATORY, AND PROJECT REQUIREMENTS. |
| 60" HP STORM SOLID<br>DETENTION<br>Dual Wall Pipe                                                                                                                                                                                                                                                          | 4640 TRULMAN BLVD<br>HILLIARD, OH 43026                                                                                                                                                                                                                                                                    |
| ADS                                                                                                                                                                                                                                                                                                        | ADS                                                                                                                                                                                                                                                                                                        |
| 2                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                          |
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60" X 90" MANIFOLD BEND W/ 30" RISER

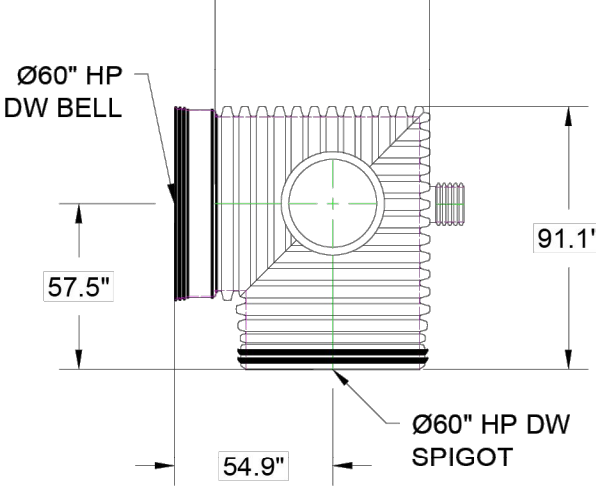


Ø30" HP DW RISER

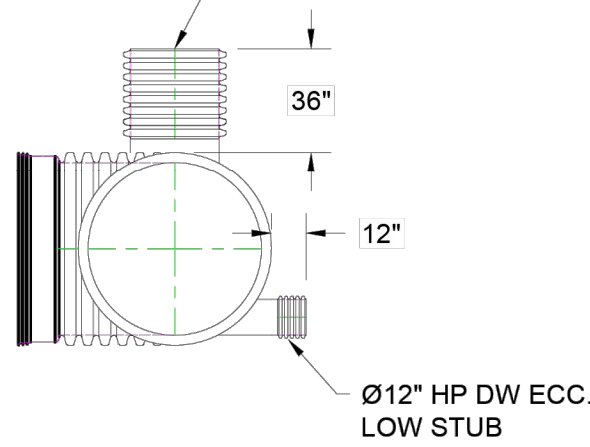


ITEM #: 4  
QTY: 1  
BEND-2

60" X 90" MANIFOLD BEND W/12" STUB & 30" RISER

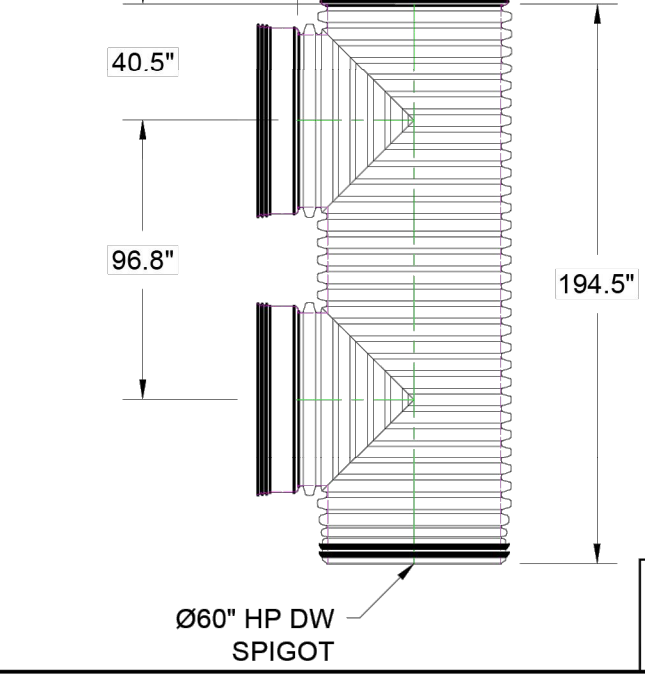


Ø30" HP DW RISER



ITEM #: 3  
QTY: 1  
BEND-1

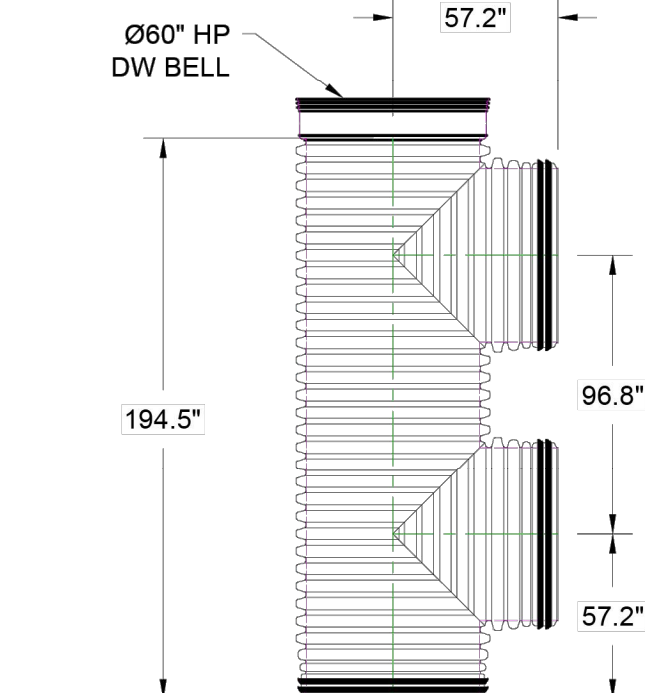
60" HP DW DOUBLE MANIFOLD TEE



Ø60" HP DW SPIGOT

ITEM #: 1  
QTY: 1  
6052AN65BP

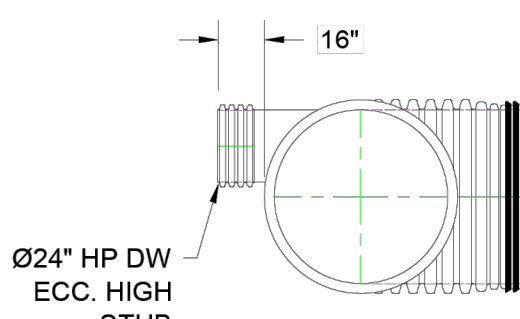
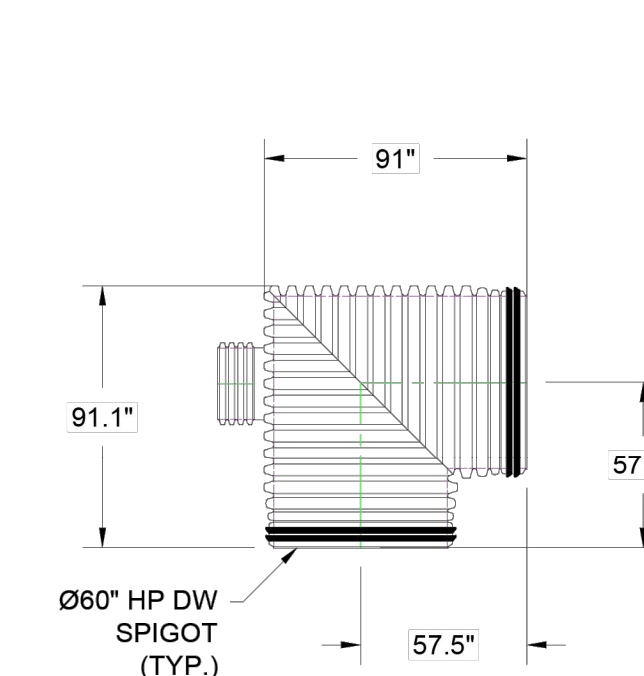
60" HP DW DOUBLE MANIFOLD TEE



ITEM #: 2  
QTY: 1  
6052AN65GP

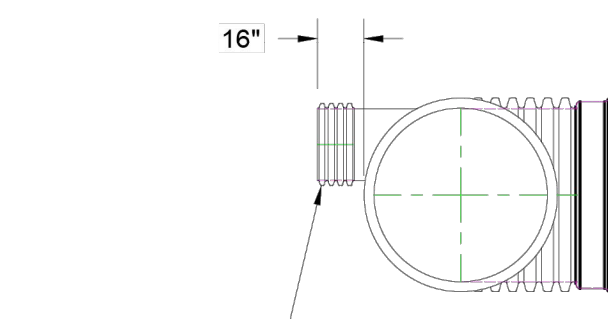
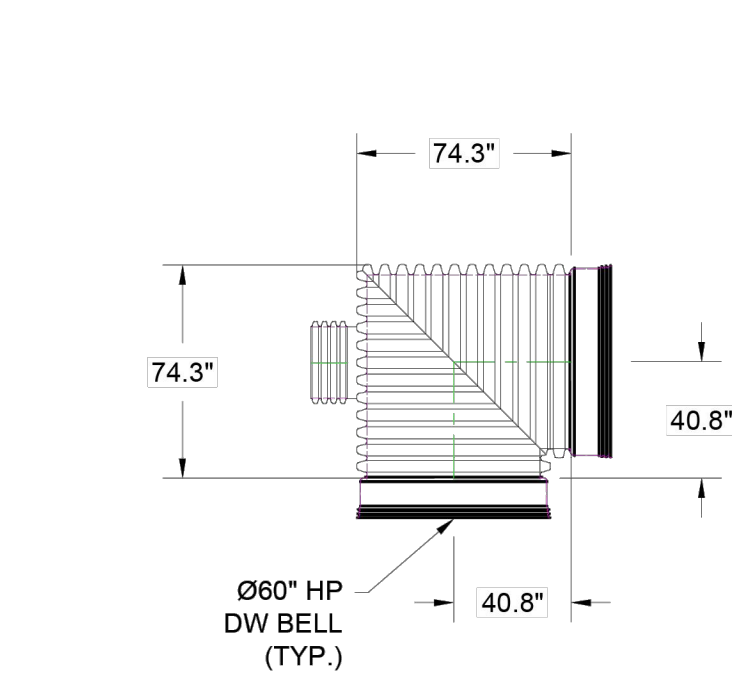
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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AVALO CARMEL CHURCH<br>BUILDING A & B<br>RUTHER GLEN, VA                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                            |
| DATE: 08-29-24                                                                                                                                                                                                                                                                                             | DRAWN: LAH                                                                                                                                                                                                                                                                                                 |
| PROJECT #:                                                                                                                                                                                                                                                                                                 | PROJECT #:                                                                                                                                                                                                                                                                                                 |
| DESCRIPTION:                                                                                                                                                                                                                                                                                               | DESCRIPTION:                                                                                                                                                                                                                                                                                               |
| EXPANDED STORAGE, ADDED NYLO BARS                                                                                                                                                                                                                                                                          | EXPANDED STORAGE, ADDED NYLO BARS                                                                                                                                                                                                                                                                          |
| THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS SPECIFIED ARE ALL ASSOCIATED DETAILS MEET ALL APPLICABLE CODE, REGULATORY, AND PROJECT REQUIREMENTS. | THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS SPECIFIED ARE ALL ASSOCIATED DETAILS MEET ALL APPLICABLE CODE, REGULATORY, AND PROJECT REQUIREMENTS. |
| 60" HP STORM SOLID<br>DETENTION<br>LandMax                                                                                                                                                                                                                                                                 | 4640 TRULMAN BLVD<br>HILLIARD, OH 43026                                                                                                                                                                                                                                                                    |
| ADS                                                                                                                                                                                                                                                                                                        | ADS                                                                                                                                                                                                                                                                                                        |
| 3                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                          |
| SHEET                                                                                                                                                                                                                                                                                                      | OF                                                                                                                                                                                                                                                                                                         |

60" X 90" MANIFOLD BEND W/24" STUB



ITEM #: 6  
QTY: 1  
6098AN65GGP-1

60" X 90" MANIFOLD BEND W/24" STUB



ITEM #: 5  
QTY: 1  
6098AN65BBP-1

|                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AVALO CARMEL CHURCH<br>BUILDING A & B<br>RUTHER GLEN, VA                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                            |
| DATE: 08-29-24                                                                                                                                                                                                                                                                                             | DRAWN: LAH                                                                                                                                                                                                                                                                                                 |
| PROJECT #:                                                                                                                                                                                                                                                                                                 | PROJECT #:                                                                                                                                                                                                                                                                                                 |
| DESCRIPTION:                                                                                                                                                                                                                                                                                               | DESCRIPTION:                                                                                                                                                                                                                                                                                               |
| EXPANDED STORAGE, ADDED NYLO BARS                                                                                                                                                                                                                                                                          | EXPANDED STORAGE, ADDED NYLO BARS                                                                                                                                                                                                                                                                          |
| THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS SPECIFIED ARE ALL ASSOCIATED DETAILS MEET ALL APPLICABLE CODE, REGULATORY, AND PROJECT REQUIREMENTS. | THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS SPECIFIED ARE ALL ASSOCIATED DETAILS MEET ALL APPLICABLE CODE, REGULATORY, AND PROJECT REQUIREMENTS. |
| 60" HP STORM SOLID<br>DETENTION<br>LandMax                                                                                                                                                                                                                                                                 | 4640 TRULMAN BLVD<br>HILLIARD, OH 43026                                                                                                                                                                                                                                                                    |
| ADS                                                                                                                                                                                                                                                                                                        | ADS                                                                                                                                                                                                                                                                                                        |
| 4                                                                                                                                                                                                                                                                                                          | 7                                                                                                                                                                                                                                                                                                          |
| SHEET                                                                                                                                                                                                                                                                                                      | OF                                                                                                                                                                                                                                                                                                         |

KHA PROJECT  
113706001  
DATE  
11/14/2025  
SCALE  
AS SHOWN  
DESIGNED BY  
STM  
DRAWN BY  
STM  
CHECKED BY  
JMM

RAINWATER  
HARVESTING  
DETAILS

PROJECT HERCULES  
SHEET NUMBER  
CG-503  
APPOMATTOX COUNTY  
VA

Kimley»Horn  
© 2025 KIMLEY-HORN AND ASSOCIATES, INC.  
6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230  
PHONE: 804-673-9882  
WWW.KIMLEY-HORN.COM

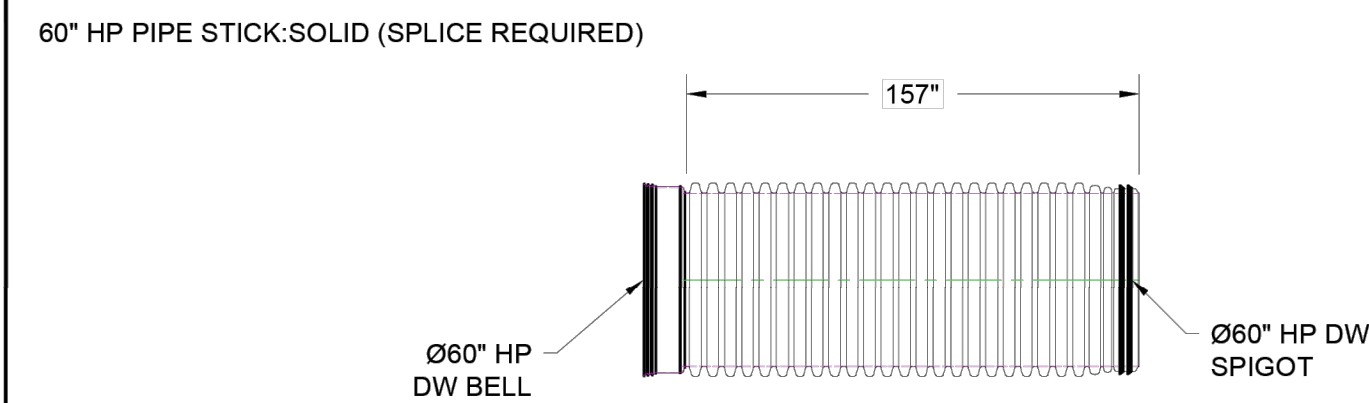
COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

JACOBS



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Printed By:WYCCRAY, Stephen     Sheet: 8/190A-CG-304 RAINWATER HARVESTING DE TAILS     November 05, 2025     04:46:16PM



|         |  |
|---------|--|
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| QTY:    |  |
| STICK-1 |  |

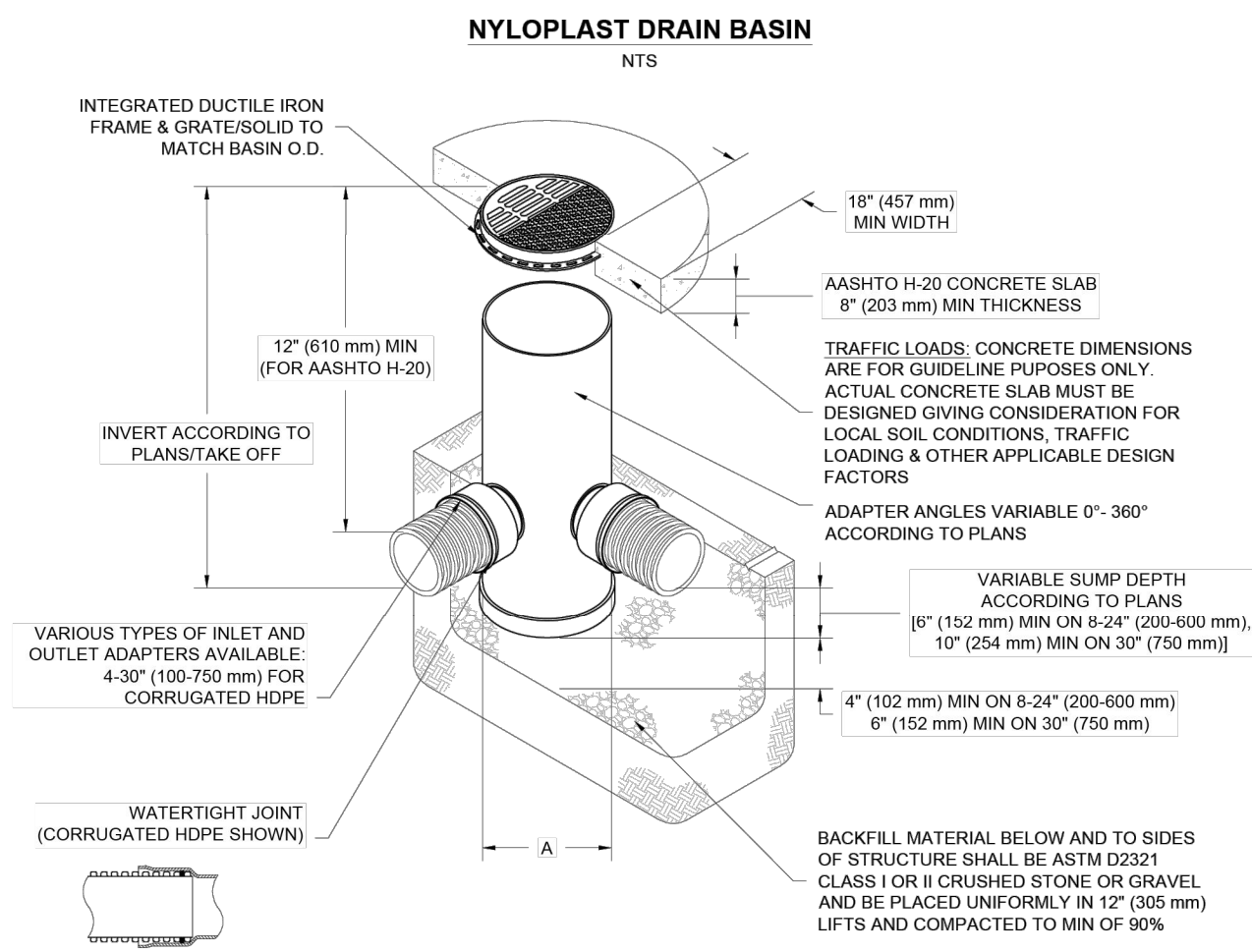
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| DATE:      | 08-09-24 | DRAWN:   | LAH |
| PROJECT #: | S428057  | CHECKED: | HAK |

REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE

| DATE     | DESCRIPTION                                   |
|----------|-----------------------------------------------|
| 11/1/424 | EXPANDED STORAGE, ADDED NYLO BAGS/INSTRUMENTS |

|                                                                                     |                                         |                                                                                   |
|-------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------|
|  | 4640 TRUEMAN BLVD<br>HILLIARD, OH 43026 | 60" HP STORM SOLID<br>DETENTION<br><b>LandMax</b><br>Stormwater Management System |
|                                                                                     |                                         |                                                                                   |

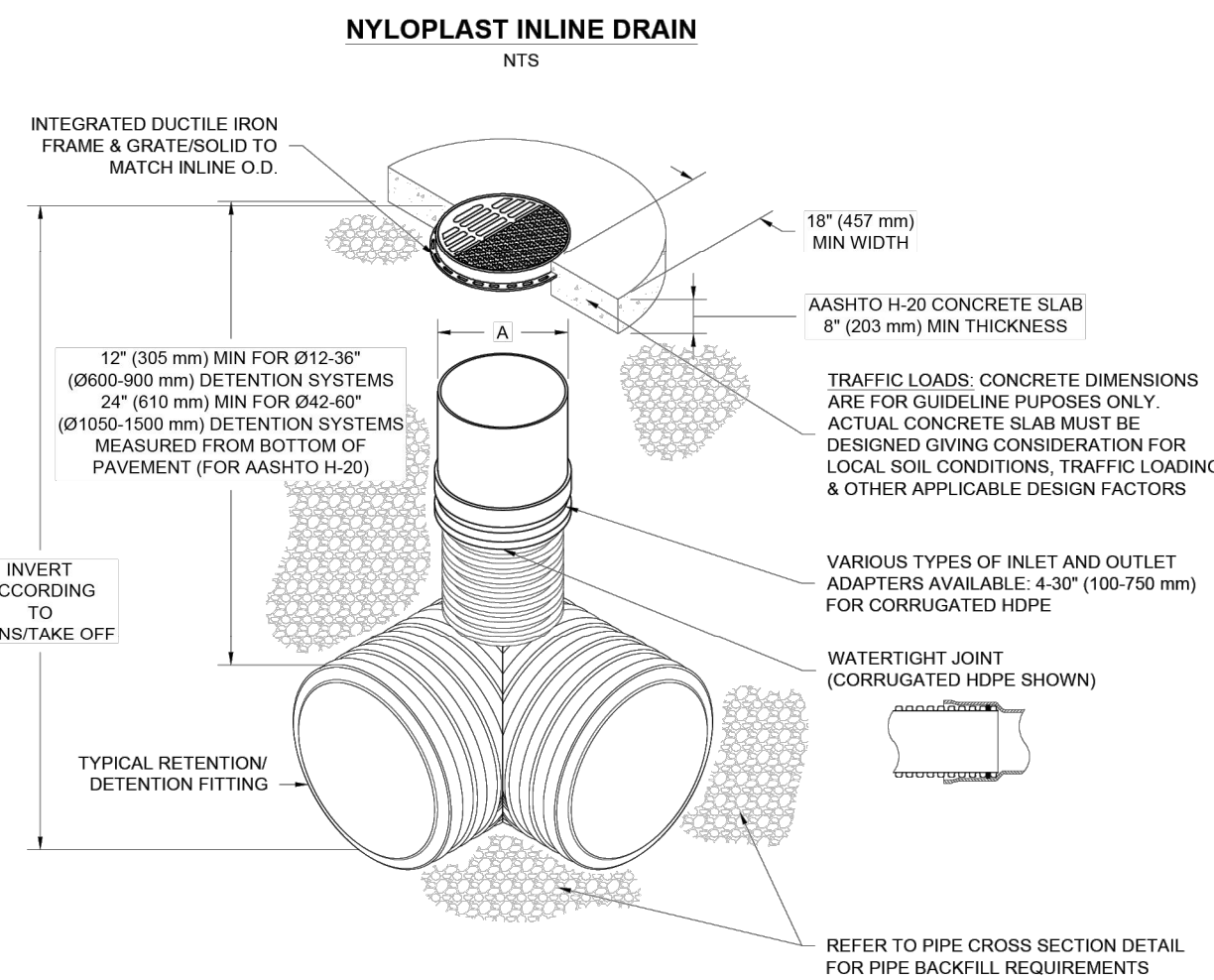
5 SHEET OF 7



## NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: [WWW.NYLOPLAST-US.COM](http://WWW.NYLOPLAST-US.COM)
6. TO ORDER CALL: 800-821-6710

| <b>A</b>        | <b>PART #</b> | <b>GRATE/SOLID COVER OPTIONS</b> |                           |                     |
|-----------------|---------------|----------------------------------|---------------------------|---------------------|
| 8"<br>(200 mm)  | 2808AG        | PEDESTRIAN LIGHT<br>DUTY         | STANDARD LIGHT<br>DUTY    | SOLID LIGHT DUTY    |
| 10"<br>(250 mm) | 2810AG        | PEDESTRIAN LIGHT<br>DUTY         | STANDARD LIGHT<br>DUTY    | SOLID LIGHT DUTY    |
| 12"<br>(300 mm) | 2812AG        | PEDESTRIAN<br>ASHTO H-10         | STANDARD<br>ASHTO<br>H-20 | SOLID<br>ASHTO H-20 |
| 15"<br>(375 mm) | 2815AG        | PEDESTRIAN<br>ASHTO H-10         | STANDARD<br>ASHTO<br>H-20 | SOLID<br>ASHTO H-20 |
| 18"<br>(450 mm) | 2818AG        | PEDESTRIAN<br>ASHTO H-10         | STANDARD<br>ASHTO<br>H-20 | SOLID<br>ASHTO H-20 |
| 24"<br>(600 mm) | 2824AG        | PEDESTRIAN<br>ASHTO H-10         | STANDARD<br>ASHTO<br>H-20 | SOLID<br>ASHTO H-20 |
| 30"<br>(750 mm) | 2830AG        | PEDESTRIAN<br>ASHTO H-10         | STANDARD<br>ASHTO<br>H-20 | SOLID<br>ASHTO H-20 |



## NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: [WWW.NYLOPLAST-US.COM](http://WWW.NYLOPLAST-US.COM)
6. TO ORDER CALL: **800-821-6710**

| A               | PART # | GRATE/SOLID COVER OPTIONS |                      |                   |  |
|-----------------|--------|---------------------------|----------------------|-------------------|--|
| 4"<br>(200 mm)  | 2708AG | PEDESTRIAN LIGHT DUTY     | STANDARD LIGHT DUTY  | SOLID LIGHT DUTY  |  |
| 10"<br>(250 mm) | 2710AG | PEDESTRIAN LIGHT DUTY     | STANDARD LIGHT DUTY  | SOLID LIGHT DUTY  |  |
| 12"<br>(300 mm) | 2712AG | PEDESTRIAN ASHOTO H-10    | STANDARD ASHOTO H-20 | SOLID ASHOTO H-20 |  |
| 15"<br>(375 mm) | 2715AG | PEDESTRIAN ASHOTO H-10    | STANDARD ASHOTO H-20 | SOLID ASHOTO H-20 |  |
| 18"<br>(450 mm) | 2718AG | PEDESTRIAN ASHOTO H-10    | STANDARD ASHOTO H-20 | SOLID ASHOTO H-20 |  |
| 24"<br>(600 mm) | 2724AG | PEDESTRIAN ASHOTO H-10    | STANDARD ASHOTO H-20 | SOLID ASHOTO H-20 |  |
| 30"<br>(750 mm) | 2730AG | PEDESTRIAN ASHOTO H-10    | STANDARD ASHOTO H-20 | SOLID ASHOTO H-20 |  |

|                                                                                   |          |
|-----------------------------------------------------------------------------------|----------|
| <b>AVAIO CARMEL CHURCH</b><br><b>BUILDING A &amp; B</b><br><b>RUTHER GLEN, VA</b> |          |
| <b>DATE:</b>                                                                      | 08-09-24 |
| <b>DRAWN:</b>                                                                     | LAH      |
| <b>PROJECT #:</b>                                                                 | S429057  |
| <b>CHECKED:</b>                                                                   | HAK      |

REVIEW THE DRAWING PRIOR TO CONSTRUCTION. IT IS THE

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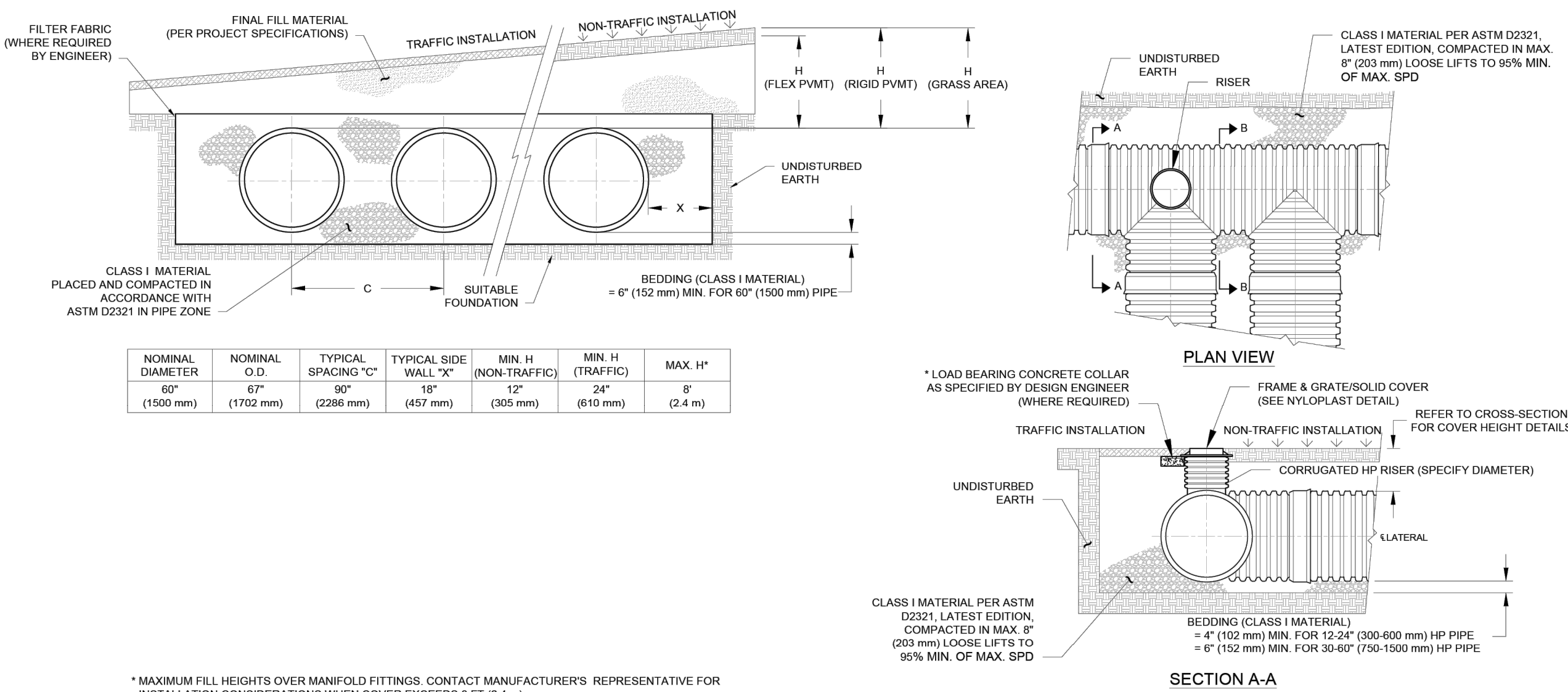
**Nyloplast®**  
770-932-2443 | [WWW.NYLOPLAST-US.COM](http://WWW.NYLOPLAST-US.COM)

7 SHEET OF 7



4640 TRUEMAN BLVD  
HILLIARD, OH 43026

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION  
FURNISHED BY THE CLIENT.



\* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8 FT (2.4 m).  
 \*\*60" (1500 mm) SYSTEMS REQUIRE CLASS I BACKFILL AROUND ALL LATERALS AND FITTINGS.

## NOTES

1. ALL REFERENCES TO CLASS I MATERIAL ARE PER ASTM D3231 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF MATRIPOLYMER PIPE FOR WASTEWATER AND OTHER GRAVITY FLOW APPLICATIONS," LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D3231, LATEST EDITION AND THE MATRIPOLYMER PIPE MANUFACTURER'S RECOMMENDATIONS.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL BEHIND. SEE ASTM D3231.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE MATRIPOLYMER PIPE MANUFACTURER'S RECOMMENDATIONS BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO THE ENGINEER, UNLESS OTHERWISE SPECIFIED. THE BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm), 6" (152 mm) FOR 24"-36" (750-900 mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I IN THE PIPE ZONE EXTENDING NO MORE THAN 15" (381 mm) FROM THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO THE ENGINEER, UNLESS OTHERWISE SPECIFIED. THE BACKFILL SHALL BE INSTALLED AS REQUIRED IN ASTM D3231, LATEST EDITION.
8. COVER: MINIMUM COVER ABOVE ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF THE SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLATTING FOR TRAFFIC APPLICATIONS. MINIMUM COVER IS 18" (305 mm) FOR 4"-24" (100-600 mm) and 24" (609 mm) FOR 24"-36" (750-900 mm) DIAMETER PIPE. MEASURED FROM TOP OF PIPE TO BOTTOM OF COVER. COVER SHALL BE 12" (305 mm) MINIMUM FOR ALL PIPE HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM COVER EXCEEDS 8 FT (2.4 m). WHEN MINIMUM COVER IS LESS THAN REQUIRED FOR INSTALLATION CONSIDERATIONS. SEE NOTES ON PLAN VIEW FOR RECOMMENDATIONS WHEN STANDARD COVER REQUIREMENTS ARE NOT MET.

\* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISE

|            |          |          |     |
|------------|----------|----------|-----|
| DATE:      | 08-09-24 | DRAWN:   | LAH |
| PROJECT #: | S426057  | CHECKED: | HAK |

REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE

| DATE      | DRWN | CHKD | DESCRIPTION                          |
|-----------|------|------|--------------------------------------|
| 11/11/424 | MCC  | ---  | EXPANDED STORAGE, ADDED NYLO BASKETS |

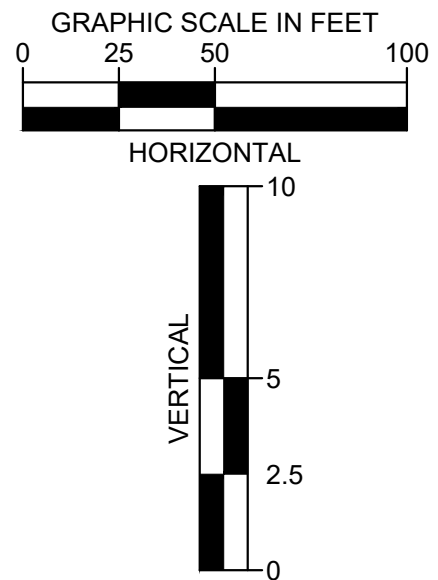
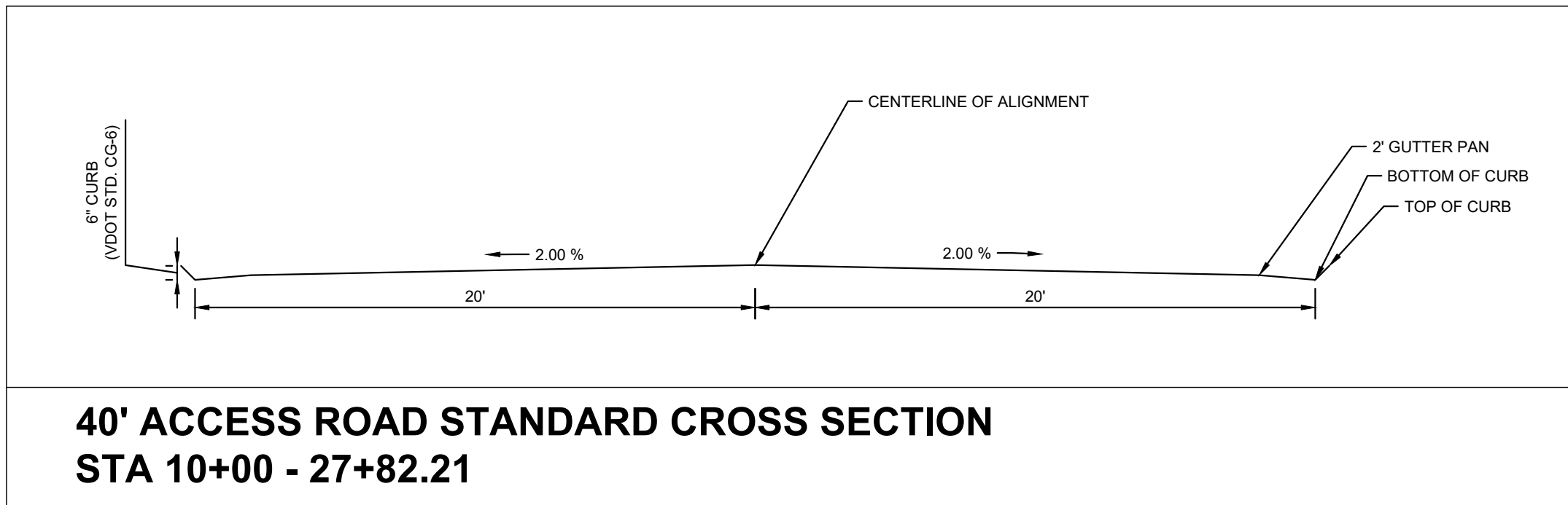
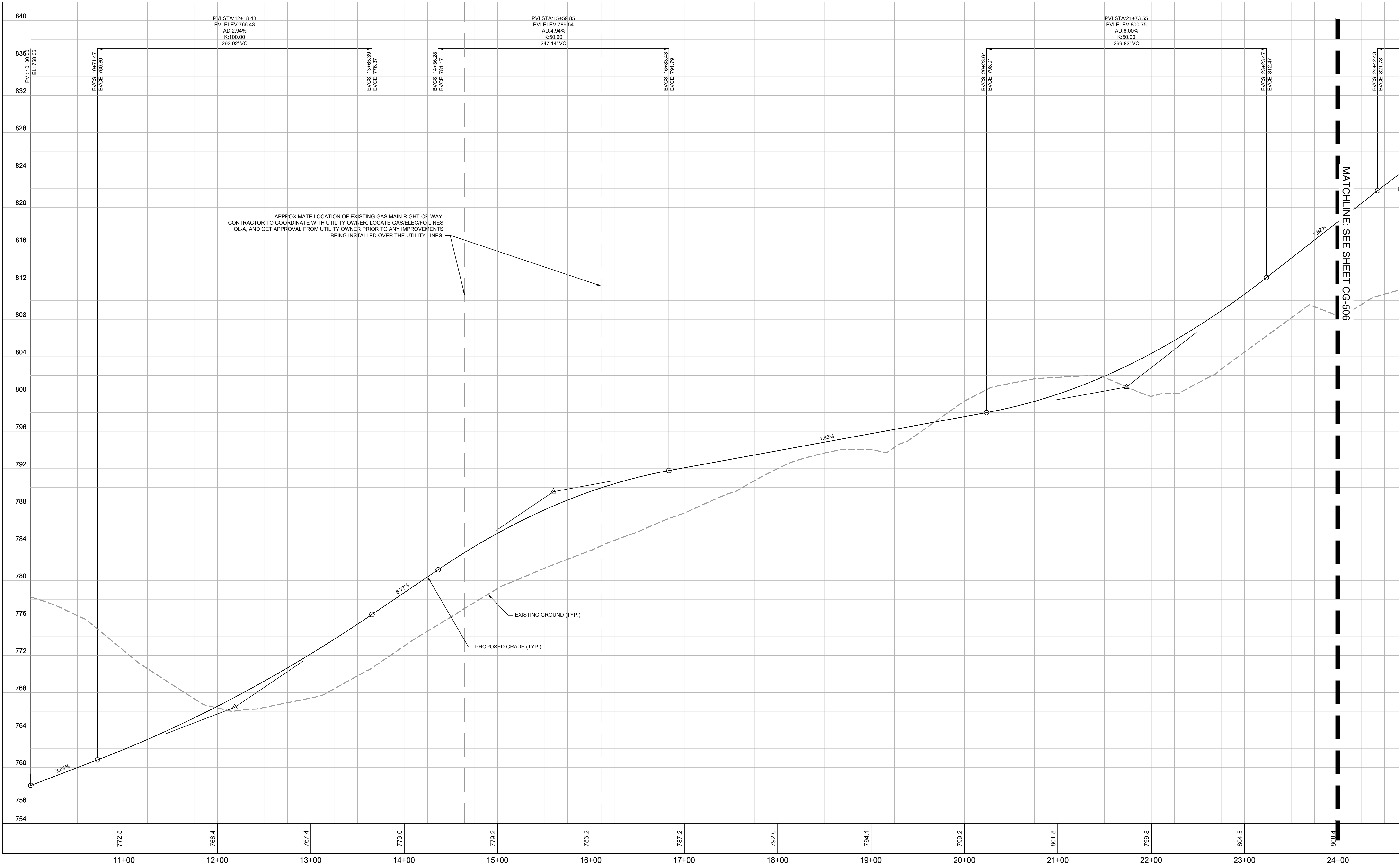
|                                                                                     |                                         |                                                                      |
|-------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------|
|  | 4640 TRUEMAN BLVD<br>HILLIARD, OH 43026 | 60" HP STORM SOLID<br>DETENTION<br><b>HP Storm</b><br>Dual Wall Pipe |
|                                                                                     |                                         |                                                                      |

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGNER.

6 SHEET OF 7



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CG-505 ACCESS ROAD PROFILE November 05, 2025 04:46:53pm  
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| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

PROJECT HERCULES

ACCESS ROAD  
PROFILE

VA

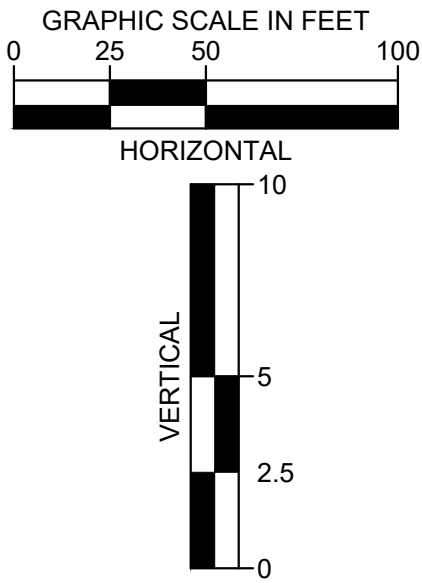
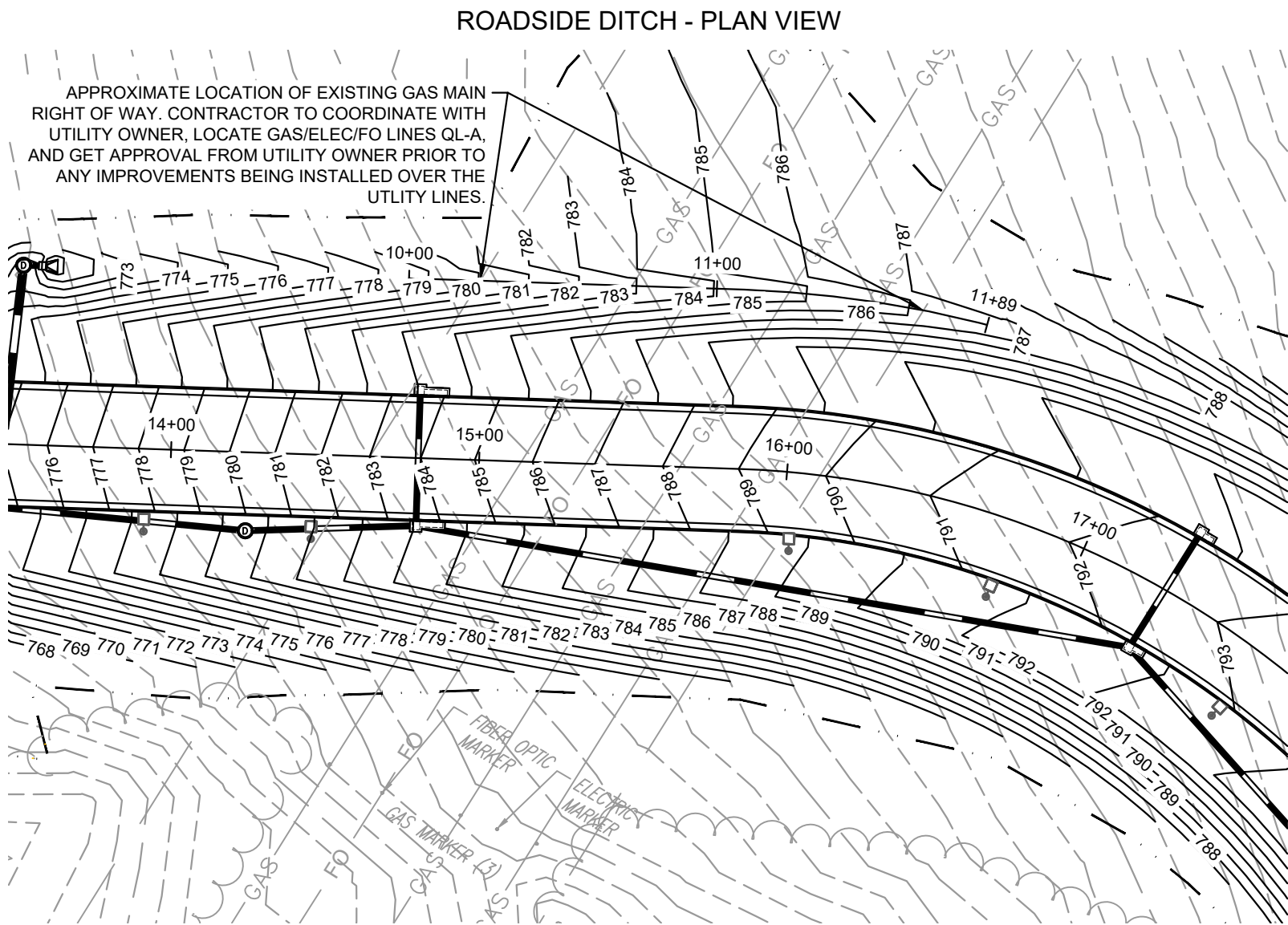
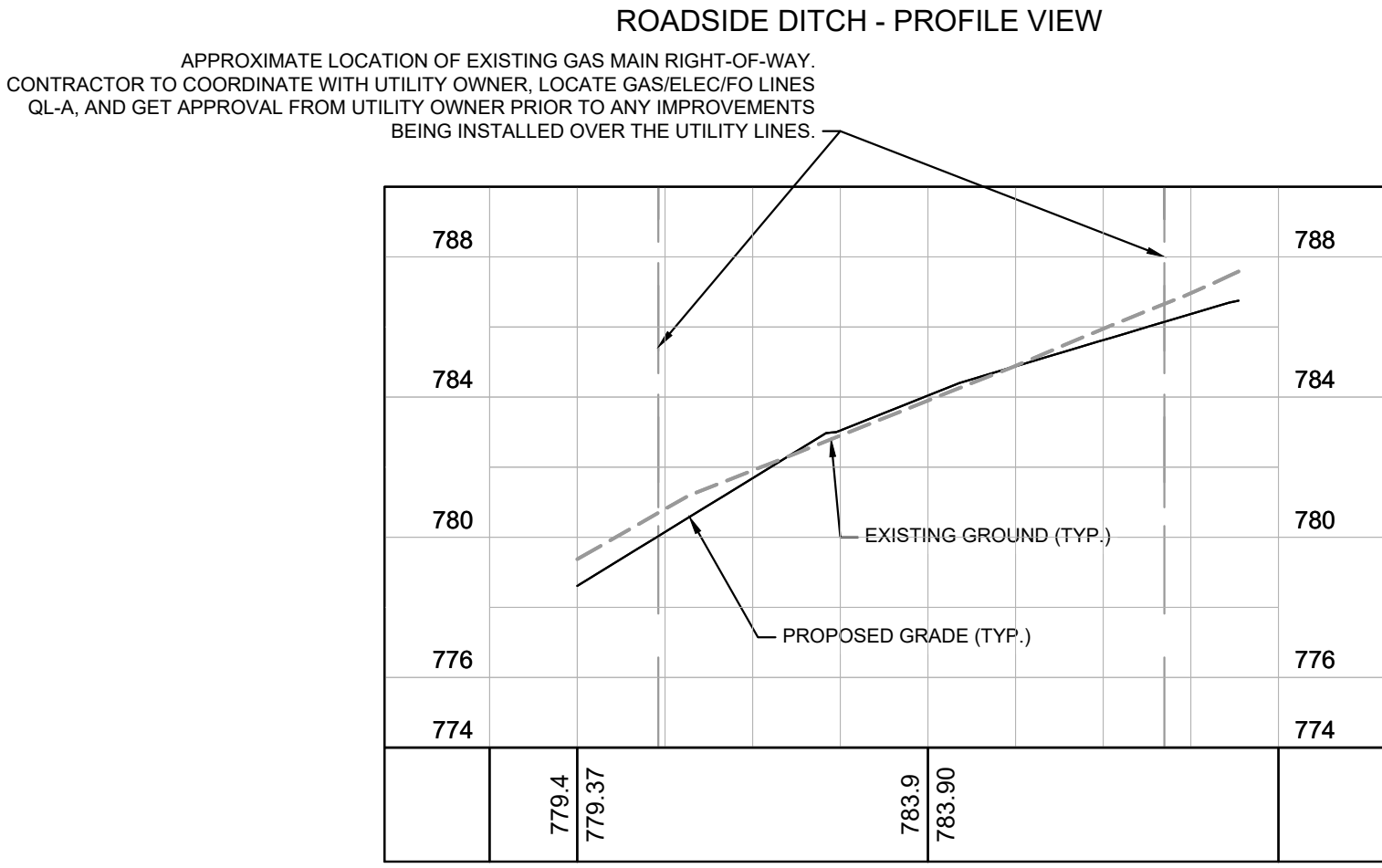
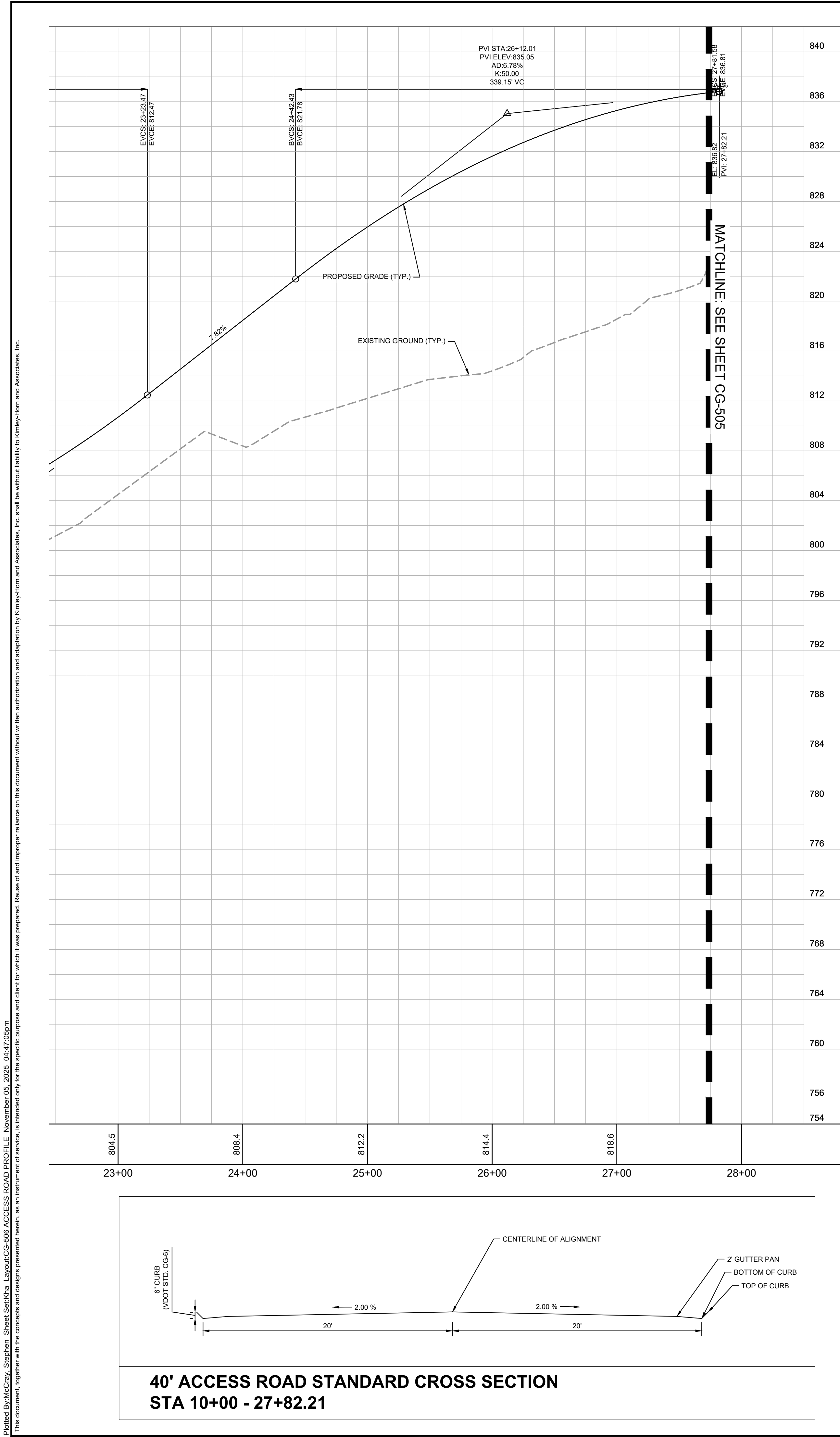
SHEET NUMBER

CG-505

APPOMATTOX COUNTY

VA





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PHONE: 804-673-3882  
WWW.KIMLEY-HORN.COM

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| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

ACCESS ROAD AND  
ROADSIDE DITCH  
PROFILES

PROJECT HERCULES

VA

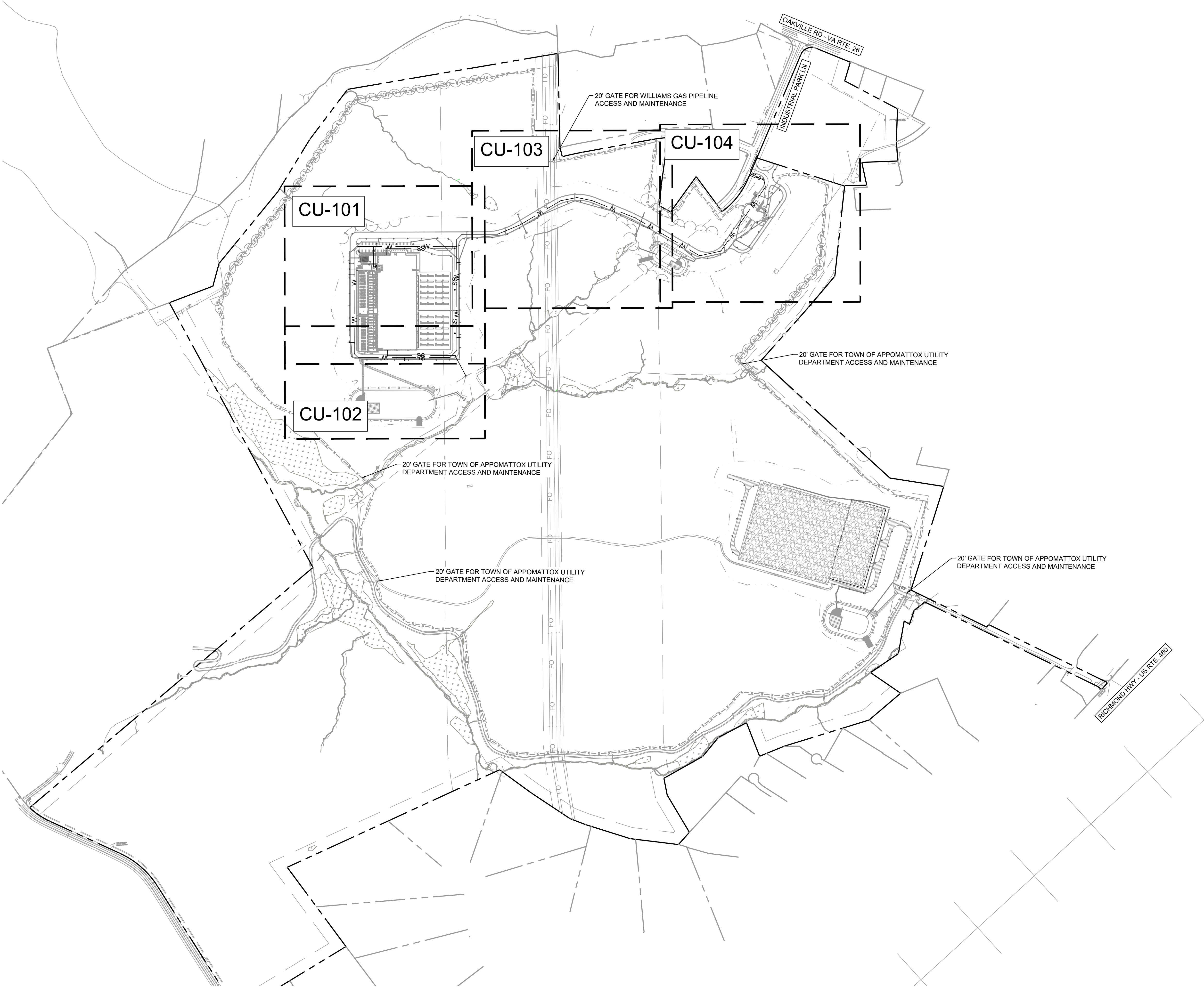
APPOMATTOX COUNTY

SHEET NUMBER

CG-506



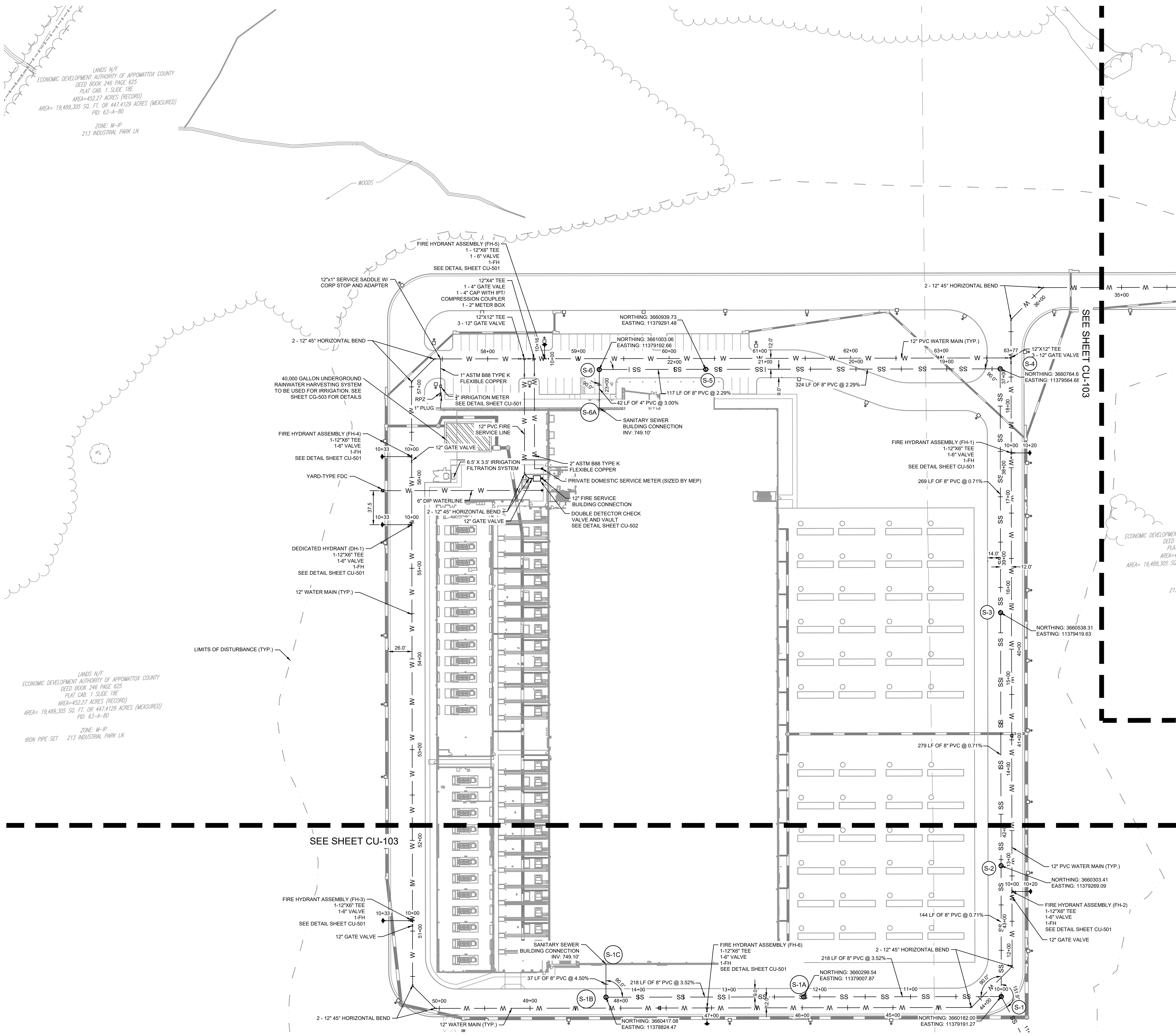
Plotted By: McCray, Stephen Sheet Set: Khs Layout: CU-100 UTILITY PLAN November 08, 2025 04:48:24pm  
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|                               |                             |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |
|-------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|--|
| <b>PROJECT HERCULES</b>       | <b>OVERALL UTILITY PLAN</b> | <b>Kimley»Horn</b><br>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br>6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br>PHONE: 804-673-8882<br>WWW.KIMLEY-HORN.COM                                                                                                       | <b>Jacobs</b> |           |      |            |       |          |             |     |          |     |            |     |  |
| APPOMATTOX COUNTY             | VA                          | <br>JOSH M. MACDONALD<br>Lic. No. 0402057995<br>11/14/2025<br>PROFESSIONAL ENGINEER                                                                                                                                                                                    |               |           |      |            |       |          |             |     |          |     |            |     |  |
| SHEET NUMBER<br><b>CU-100</b> |                             | <table><tr><td>KHA PROJECT</td><td>113706001</td></tr><tr><td>DATE</td><td>11/14/2025</td></tr><tr><td>SCALE</td><td>AS SHOWN</td></tr><tr><td>DESIGNED BY</td><td>STM</td></tr><tr><td>DRAWN BY</td><td>STM</td></tr><tr><td>CHECKED BY</td><td>JMM</td></tr></table> | KHA PROJECT   | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |  |
| KHA PROJECT                   | 113706001                   |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |
| DATE                          | 11/14/2025                  |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |
| SCALE                         | AS SHOWN                    |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |
| DESIGNED BY                   | STM                         |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |
| DRAWN BY                      | STM                         |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |
| CHECKED BY                    | JMM                         |                                                                                                                                                                                                                                                                        |               |           |      |            |       |          |             |     |          |     |            |     |  |



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- UTILITY NOTES**
- CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY KIMLEY-HORN IN ORDER TO VERIFY ADEQUATE SEPARATION BETWEEN UTILITIES CAN BE ACHIEVED AND NO CONFLICTS EXIST.
  - RPZ BACKFLOW PREVENTERS FOR DOMESTIC SERVICE LINE SHALL BE PROVIDED WITHIN BUILDING MECHANICAL ROOM.
  - REFER TO SHEET CV-101 THROUGH CV-106 FOR ALL EXISTING EASEMENTS AND UTILITIES. CONTRACTOR TO COORDINATE
  - REFER TO SHEETS CU-501 - CU-502 FOR ALL UTILITY DETAILS.
  - THE CONTRACTOR SHALL COORDINATE SHUTOFFS WITH THE TOWN OF APPOMATTOX DEPARTMENT OF PUBLIC UTILITIES. ONLY PUBLIC UTILITIES PERSONNEL MAY OPERATE THE NECESSARY VALVES TO MAKE WATERLINE TIE-INS AND PERFORM FLUSHING AND TESTING OPERATIONS.
  - ONLY ONE FIRE HYDRANT EXTENSION IS ALLOWED PER INSTALLED HYDRANT.
  - WHENEVER CONNECTING A SEWER LINE TO AN EXISTING MANHOLE, CORE DRILLING, A FLEXIBLE PIPE-TO-MANHOLE CONNECTOR SHALL BE USED. THE CONNECTOR SHALL BE A KOR-N-SEAL ASSEMBLY OR AN APPROVED EQUAL. IT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

**APPROXIMATE UTILITY QUANTITIES**

**APPROXIMATE WATER QUANTITIES (PRIVATE):**

|                                    |          |
|------------------------------------|----------|
| 12" PVC C900 CLASS 200             | 5,517 LF |
| 2" ASTM B88 TYPE K FLEXIBLE COPPER | 127 LF   |
| 1" ASTM B88 TYPE K FLEXIBLE COPPER | 35 LF    |
| 6" DI CLASS 52                     | 315 LF   |
| 2" METER                           | 1 EA     |
| 3/4" IRRIGATION METER              | 1 EA     |
| AIR RELEASE VALVE                  | 2 EA     |

**APPROXIMATE SAN. SEWER QUANTITIES (PRIVATE):**

|                                                     |         |
|-----------------------------------------------------|---------|
| 4" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 42 LF   |
| 8" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 1388 LF |
| 8" DIP SPECIAL THICKNESS CLASS 51 ANSI/AWWA C151    | 149 LF  |
| SANITARY SEWER MANHOLES                             | 8 EA    |

- UTILITY LEGEND**
- |    |    |    |                           |
|----|----|----|---------------------------|
| SS | SS | SS | 8" GRAVITY SANITARY SEWER |
| W  | W  | W  | WATER MAIN                |
- 
- |  |                                      |
|--|--------------------------------------|
|  | GATE VALVE                           |
|  | AIR RELEASE VALVE                    |
|  | MANHOLE                              |
|  | CLEANOUT                             |
|  | FIRE HYDRANT ASSEMBLY                |
|  | YARD TYPE FIRE DEPARTMENT CONNECTION |

- TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY WORK NOTES**
- ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
  - VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
  - EXCAVATION: NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET. WELD OR ATTACH A BAR ACROSS THE TEETH.
  - CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90° AS POSSIBLE.
  - NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.

|             |           |      |            |       |          |             |     |          |     |            |     |
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| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
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UTILITY PLAN

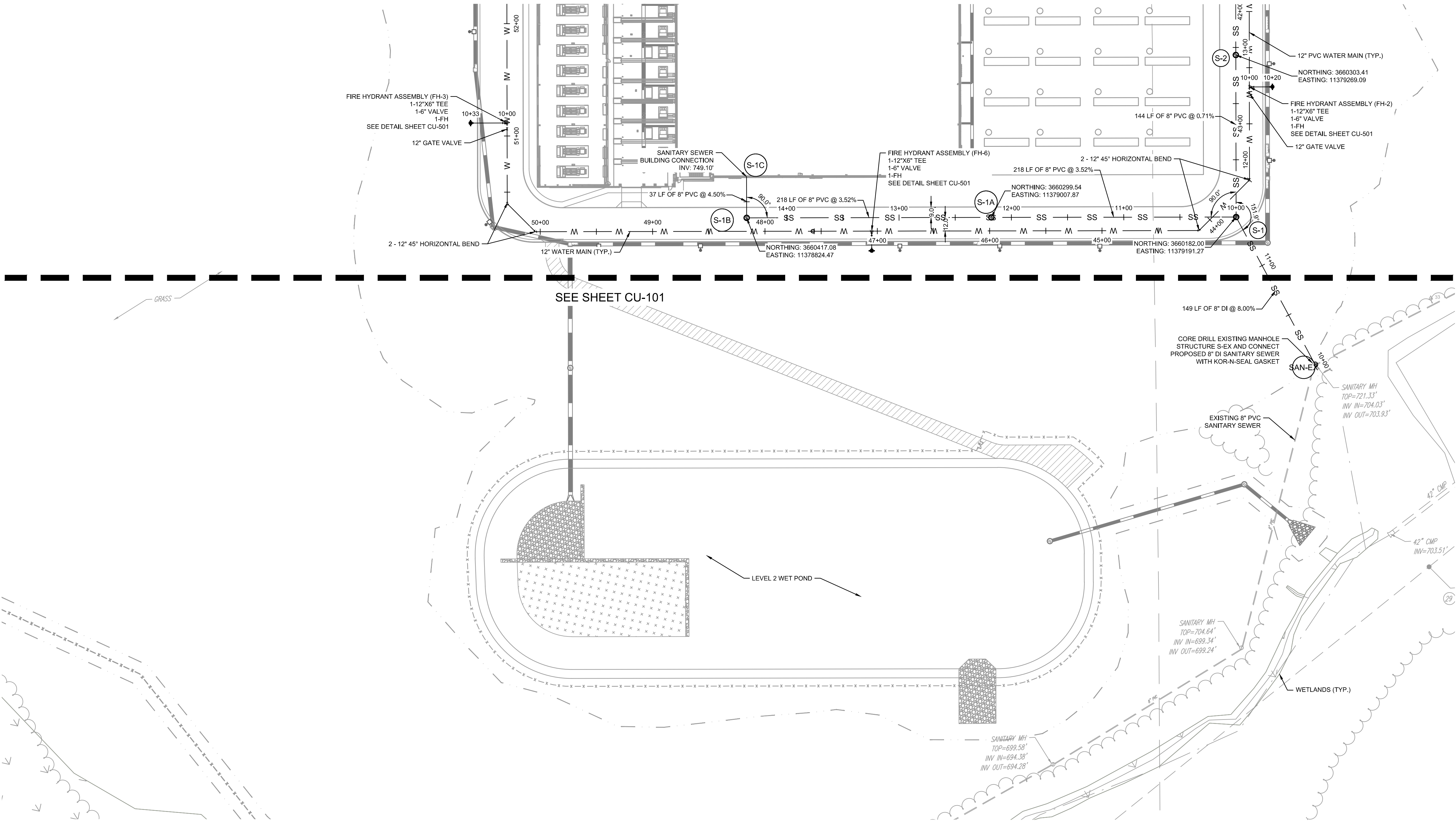
PROJECT HERCULES

SHEET NUMBER  
CU-101

VA  
APPOMATTOX COUNTY



Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CU-102 UTILITY PLAN November 10, 2025 11:08:05am  
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#### UTILITY NOTES

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- RPZ BACKFLOW PREVENTERS FOR DOMESTIC SERVICE LINE SHALL BE PROVIDED WITHIN BUILDING MECHANICAL ROOM.
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- REFER TO SHEETS CU-501 - CU-502 FOR ALL UTILITY DETAILS.
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#### APPROXIMATE UTILITY QUANTITIES

##### APPROXIMATE WATER QUANTITIES (PRIVATE):

|                                    |          |
|------------------------------------|----------|
| 12" PVC C900 CLASS 200             | 5,517 LF |
| 2" ASTM B88 TYPE K FLEXIBLE COPPER | 127 LF   |
| 1" ASTM B88 TYPE K FLEXIBLE COPPER | 35 LF    |
| 6" DI CLASS 52                     | 315 LF   |
| 2" METER                           | 1 EA     |
| 3/4" IRRIGATION METER              | 1 EA     |
| AIR RELEASE VALVE                  | 2 EA     |

##### APPROXIMATE SAN. SEWER QUANTITIES (PRIVATE):

|                                                     |         |
|-----------------------------------------------------|---------|
| 4" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 42 LF   |
| 8" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 1388 LF |
| 8" DIP SPECIAL THICKNESS CLASS 51 ANSI/AWWA C151    | 149 LF  |
| SANITARY SEWER MANHOLES                             | 8 EA    |

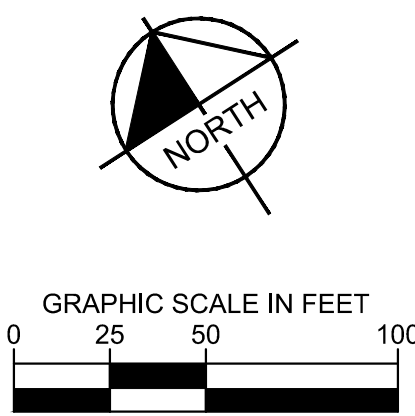
#### UTILITY LEGEND

|    |    |    |                                      |
|----|----|----|--------------------------------------|
| SS | SS | SS | 8" GRAVITY SANITARY SEWER            |
| W  | W  | W  | WATER MAIN                           |
|    |    |    | GATE VALVE                           |
|    |    |    | AIR RELEASE VALVE                    |
|    |    |    | MANHOLE                              |
|    |    |    | CLEANOUT                             |
|    |    |    | FIRE HYDRANT ASSEMBLY                |
|    |    |    | YARD TYPE FIRE DEPARTMENT CONNECTION |

#### TRANSCONTINENTAL GAS PIPELINE

##### RIGHT-OF-WAY WORK NOTES

- ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
- VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
- EXCAVATION: NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET, WELD OR ATTACH A BAR ACROSS THE TEETH.
- CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90° AS POSSIBLE.
- NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.



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| KHA PROJECT | 113706001 | DATE | 11/11/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
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UTILITY PLAN

PROJECT HERCULES

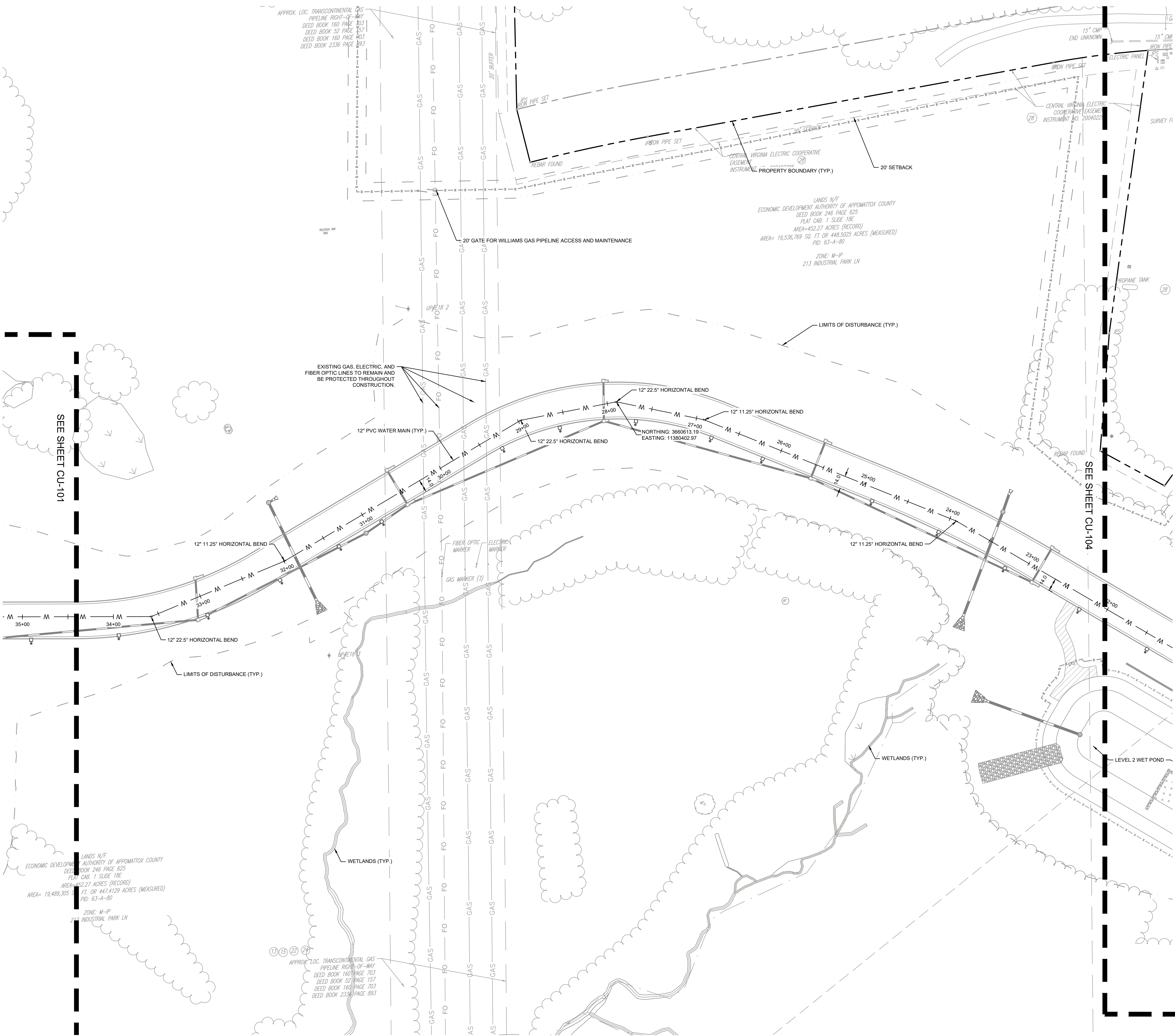
APPOMATTOX COUNTY

VA

SHEET NUMBER

CU-102





## UTILITY NOTES

3. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY KIMLEY-HORN IN ORDER TO VERIFY ADEQUATE SEPARATION BETWEEN UTILITIES CAN BE ACHIEVED AND NO CONFLICTS EXIST.
  4. RP2 BACKFLOW PREVENTERS FOR DOMESTIC SERVICE LINE SHALL BE PROVIDED WITHIN BUILDING MECHANICAL ROOM.
  5. REFER TO SHEET CV-101 THROUGH CV-106 FOR ALL EXISTING EASEMENTS AND UTILITIES. CONTRACTOR TO COORDINATE
  6. REFER TO SHEETS CU-501 - CU-502 FOR ALL UTILITY DETAILS.
- THE CONTRACTOR SHALL COORDINATE SHUTOFFS WITH THE TOWN OF APOPOKATON. DEPARTMENT OF PUBLIC UTILITIES. ONLY PUBLIC UTILITIES PERSONNEL MAY OPERATE THE NECESSARY VALVES TO MAKE WATERLINE TIE-INS AND PERFORM FLUSHING AND TESTING OPERATIONS.
7. ONLY ONE FIRE HYDRANT EXTENSION IS ALLOWED PER INSTALLED HYDRANT.
- WHENEVER CONNECTING A SEWER LINE TO AN EXISTING MANHOLE, CORE DRILLING, A FLEXIBLE PIPE-TO-MANHOLE CONNECTOR SHALL BE USED. THE CONNECTOR SHALL BE A KOR-AN-SEAL ASSEMBLY OR AN APPROVED EQUAL. IT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

### APPROXIMATE UTILITY QUANTITIES

APPROXIMATE WATER QUANTITIES (PRIVATE):

|                                     |       |    |
|-------------------------------------|-------|----|
| 12" PVC C900 CLASS 200              | 5,517 | LF |
| 12" ASTM B88 TYPE K FLEXIBLE COPPER | 127   | LF |
| 1" ASTM B88 TYPE K FLEXIBLE COPPER  | 35    | LF |
| 8" DI CLASS 52                      | 315   | LF |
| 2" METER                            | 1     | EA |
| 1/4" IRRIGATION METER               | 1     | EA |
| AIR RELEASE VALVE                   | 2     | EA |

APPROXIMATE SAN. SEWER QUANTITIES (PRIVATE)

|                                                     |      |    |
|-----------------------------------------------------|------|----|
| 4" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 42   | LF |
| 8" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 1388 | LF |
| 8" DIP SPECIAL THICKNESS CLASS 51 ANSI/AWWA C151    | 149  | LF |
| SANITARY SEWER MANHOLES                             | 8    | EA |

### UTILITY LEGEND

SS SS SS 8" GRAVITY SANITARY SEWER

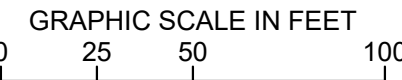
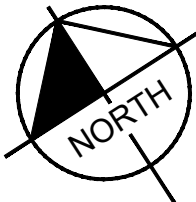
W W W W WATER MAIN

|                                                                                     |                                         |
|-------------------------------------------------------------------------------------|-----------------------------------------|
|  | GATE VALVE                              |
|  | AIR RELEASE VALVE                       |
|  | MANHOLE                                 |
|  | CLEANOUT                                |
|  | FIRE HYDRANT ASSEMBLY                   |
|  | YARD TYPE FIRE DEPARTMENT<br>CONNECTION |

## TRANSCONTINENTAL GAS PIPELINE

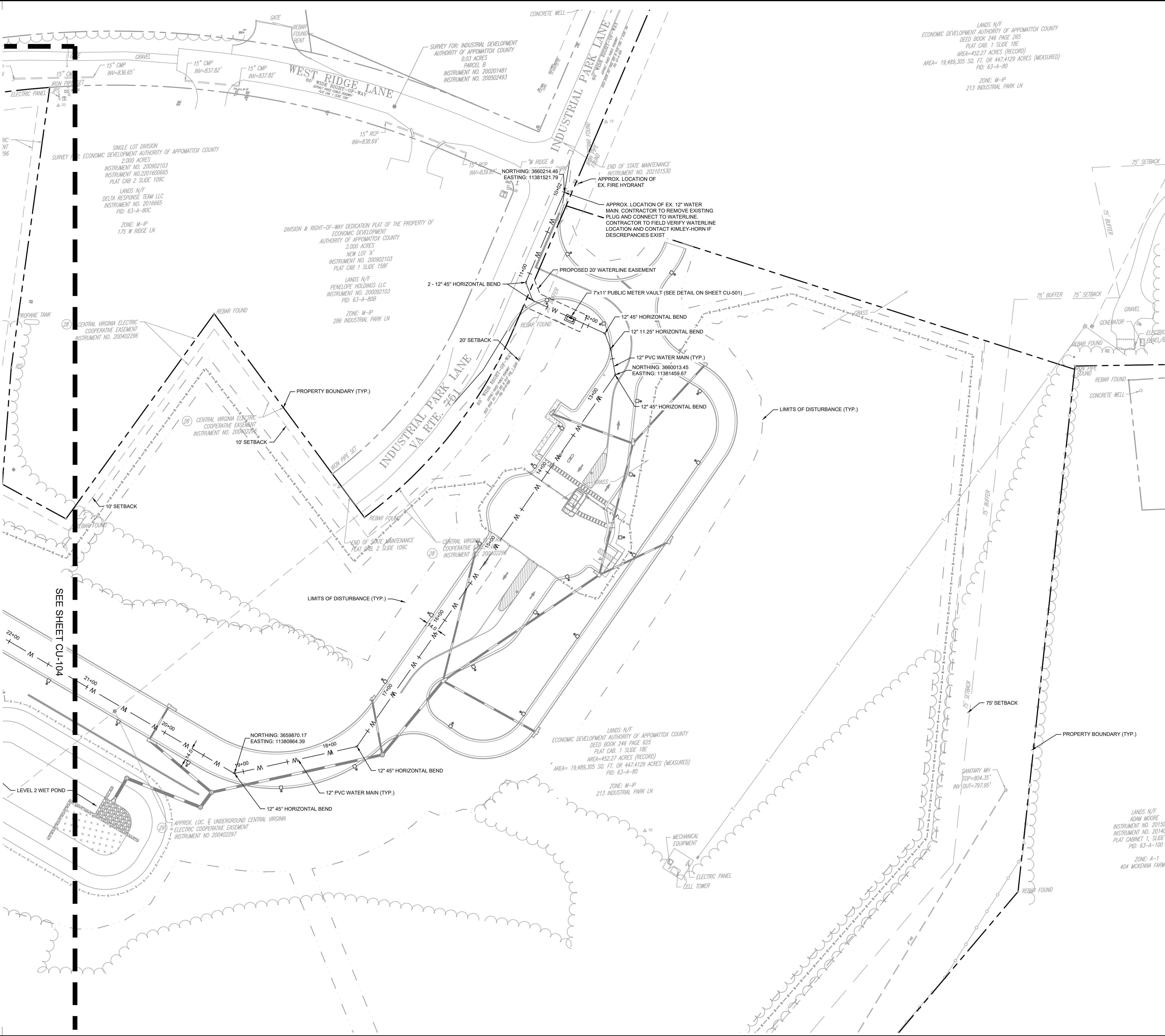
## RIGHT-OF-WAY WORK NOTES

1. ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
2. VIBRATORY EQUIPMENT: VIBRATORY EQUIPMENT IS PROHIBITED WITHIN THE LIMITS OF THE COMPANY ROW. VIBRATORY EQUIPMENT IS NOT PERMITTED TO BE USED FOR ACHIEVING APPLICABLE COMPACTION REQUIREMENTS.
3. EXCAVATION: NO MACHINE EXCAVATION ALLOWED WITHIN 2 FEET OF ANY COMPANY PIPELINE. REMOVE SIDE CUTTERS FROM THE BUCKET, WELD OR ATTACH A BAR ACROSS THE TEETH.
4. CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90 AS POSSIBLE.
5. NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.





Plotted By:McGray, Stephen Sheet Set:Kha Layout:CU-104 UTILITY PLAN November 05, 2025 04:49:55pm  
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#### UTILITY NOTES

- CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY KIMLEY-HORN IN ORDER TO VERIFY ADEQUATE SEPARATION BETWEEN SERVICE LINE CAN BE ACHIEVED AND NO CONFLICTS EXIST.
- RP2 BACKFLOW PREVENTERS FOR DOMESTIC SERVICE LINE SHALL BE PROVIDED WITHIN BUILDING MECHANICAL ROOM.
- REFER TO SHEET CU-101 THROUGH CU-106 FOR ALL EXISTING EASEMENTS AND UTILITIES. CONTRACTOR TO COORDINATE.
- REFER TO SHEETS CU-501 - CU-502 FOR ALL UTILITY DETAILS.
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#### APPROXIMATE UTILITY QUANTITIES

##### APPROXIMATE WATER QUANTITIES (PRIVATE):

|                                    |          |
|------------------------------------|----------|
| 12" PVC C900 CLASS 200             | 5,517 LF |
| 2" ASTM B88 TYPE K FLEXIBLE COPPER | 127 LF   |
| 1" ASTM B88 TYPE K FLEXIBLE COPPER | 35 LF    |
| 6" DI CLASS 52                     | 315 LF   |
| 2" METER                           | 1 EA     |
| 3/4" IRRIGATION METER              | 1 EA     |
| AIR RELEASE VALVE                  | 2 EA     |

##### APPROXIMATE SAN. SEWER QUANTITIES (PRIVATE):

|                                                     |         |
|-----------------------------------------------------|---------|
| 4" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 42 LF   |
| 8" PVC GRAVITY SANITARY SEWER ASTM 3034-77 (SDR 35) | 1388 LF |
| 8" DIP SPECIAL THICKNESS CLASS 51 ANSI/AWWA C151    | 149 LF  |
| SANITARY SEWER MANHOLES                             | 8 EA    |

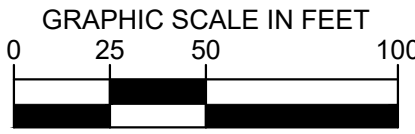
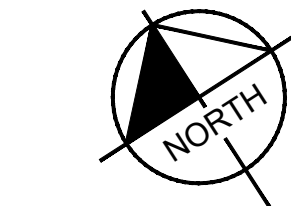
#### UTILITY LEGEND

|    |    |    |                                      |
|----|----|----|--------------------------------------|
| SS | SS | SS | 8" GRAVITY SANITARY SEWER            |
| W  | W  | W  | WATER MAIN                           |
| +  |    |    | GATE VALVE                           |
| +  |    |    | AIR RELEASE VALVE                    |
| +  |    |    | MANHOLE                              |
| +  |    |    | CLEANOUT                             |
| +  |    |    | FIRE HYDRANT ASSEMBLY                |
| +  |    |    | YARD TYPE FIRE DEPARTMENT CONNECTION |

#### TRANSCONTINENTAL GAS PIPELINE

##### RIGHT-OF-WAY WORK NOTES

- ONSITE: AN AUTHORIZED WILLIAMS REPRESENTATIVE MUST BE ON SITE PRIOR TO AND DURING ANY SURFACE DISTURBING WORK WITHIN THE TRANSCONTINENTAL GAS PIPELINE RIGHT-OF-WAY. THE AUTHORIZED COMPANY WILL ASSIST IN DETERMINING THE LOCATION OF THE PIPELINES, THE ROW WIDTH, AND THE EXISTING COVER OVER THE PIPELINE AND WILL REMAIN ON SITE TO MONITOR ALL ACTIVITIES WITHIN THE ROW.
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- CROSSING ANGLE: ROADS AND UTILITIES SHALL CROSS AS CLOSE TO 90° AS POSSIBLE.
- NO HORIZONTAL OR VERTICAL BENDS ARE PERMITTED WITHIN COMPANY ROW.



# Jacobs

## Kimley»Horn

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COMMONWEALTH OF VIRGINIA  
JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113708001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

## UTILITY PLAN

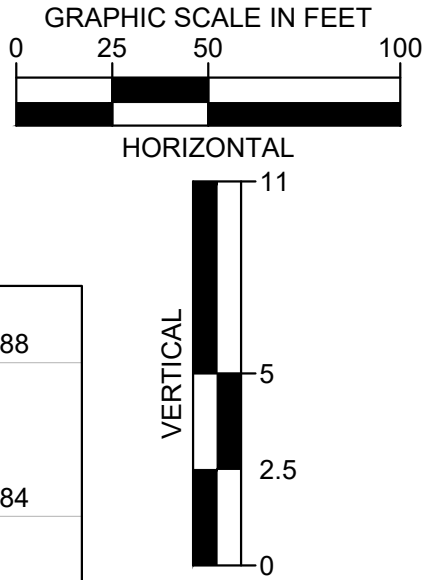
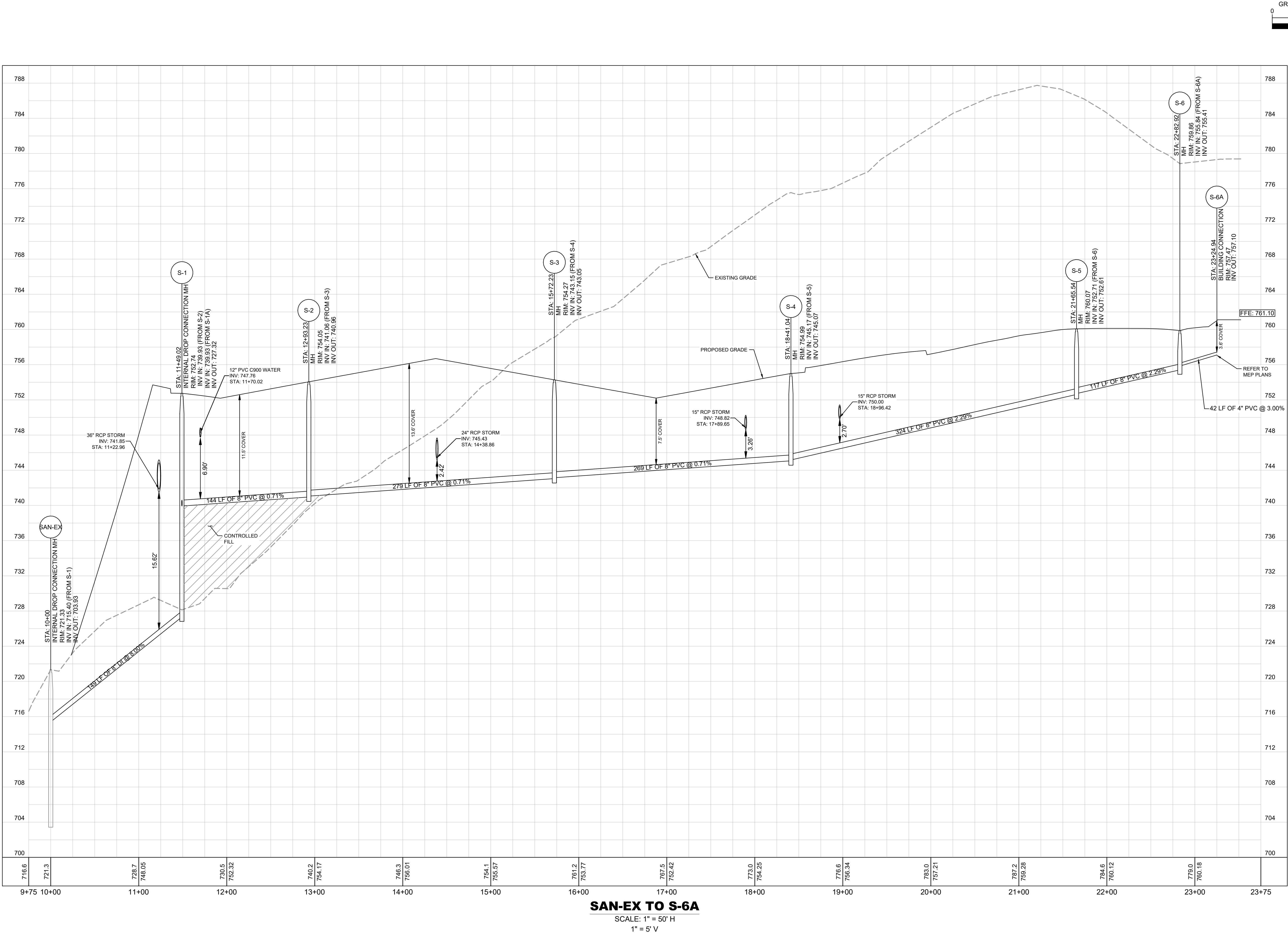
## PROJECT HERCULES

VA  
APPOMATTOX COUNTY

SHEET NUMBER  
**CU-104**



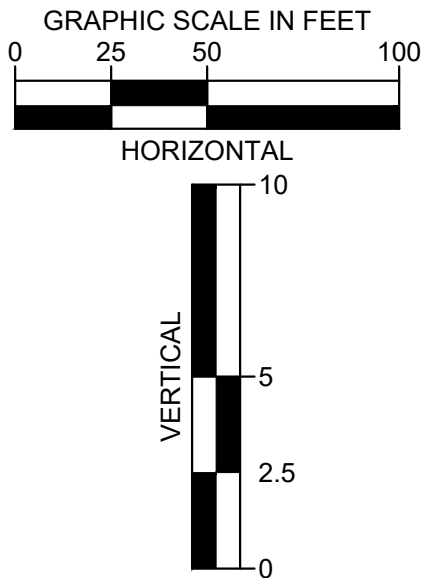
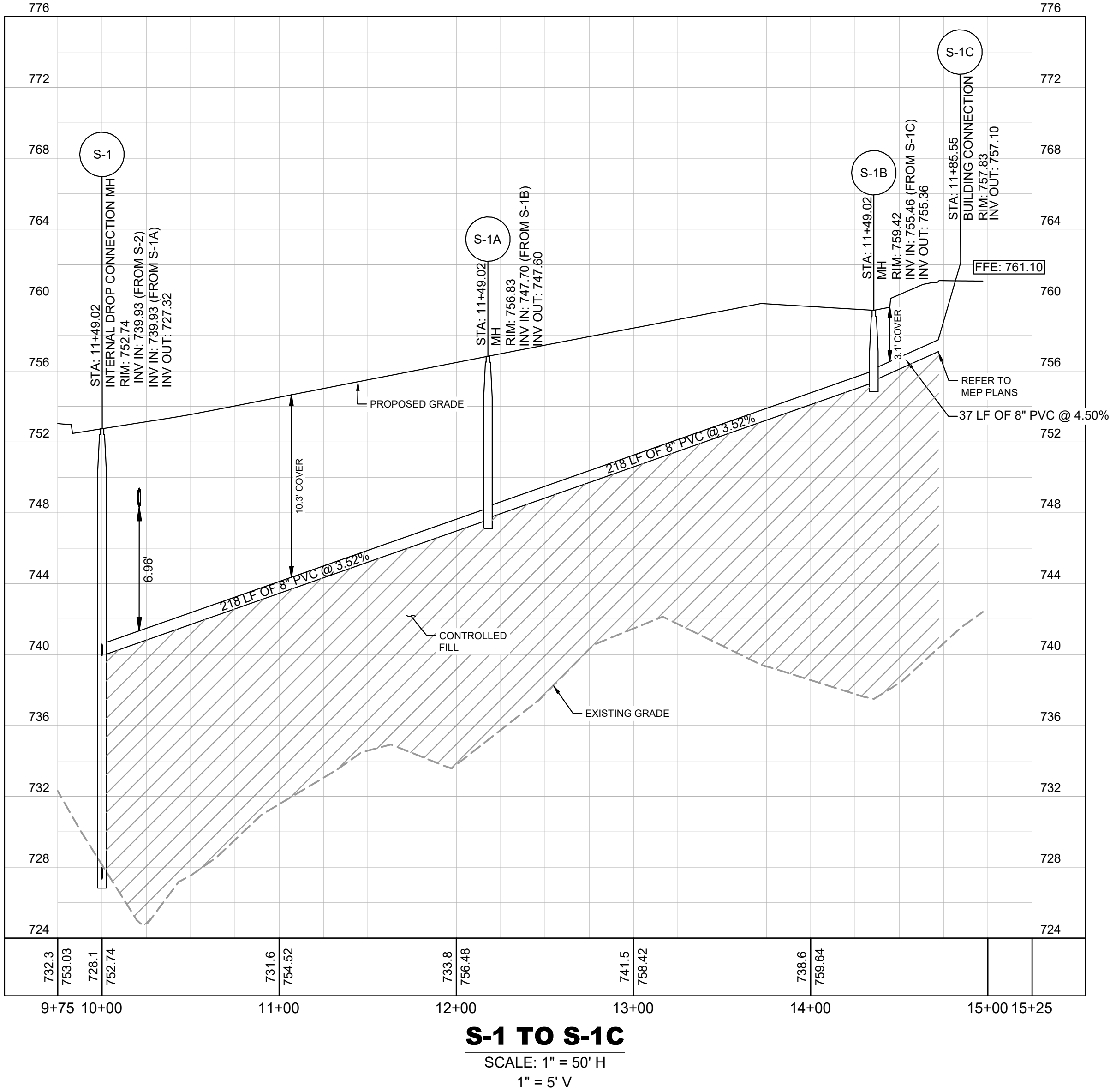
Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CU-201 SEWER PROFILES November 05, 2025 04:50:37pm  
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**SAN-EX TO S-6A**  
SCALE: 1" = 50' H  
1" = 5' V

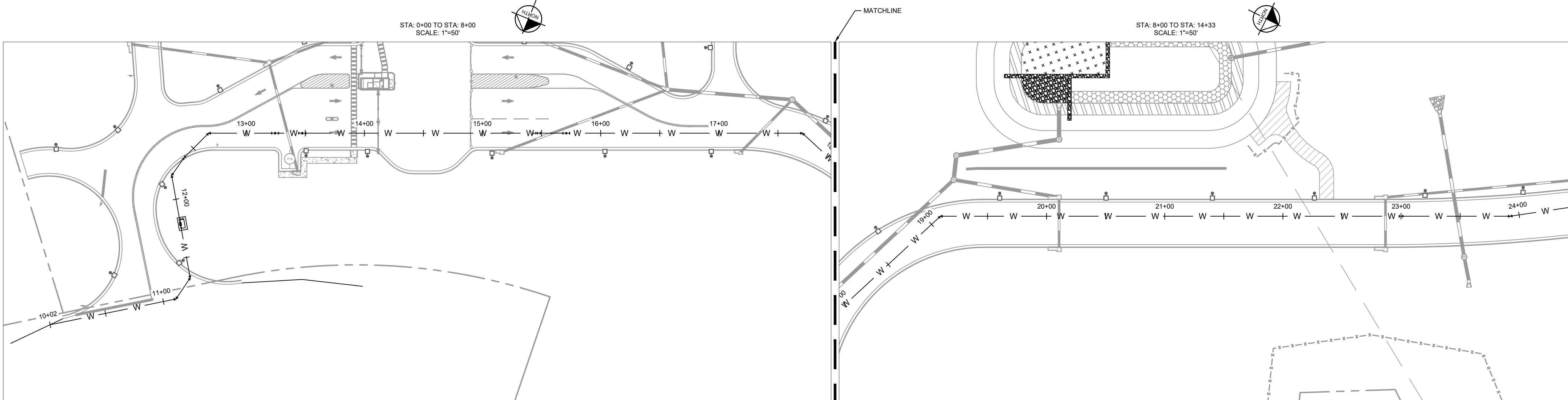
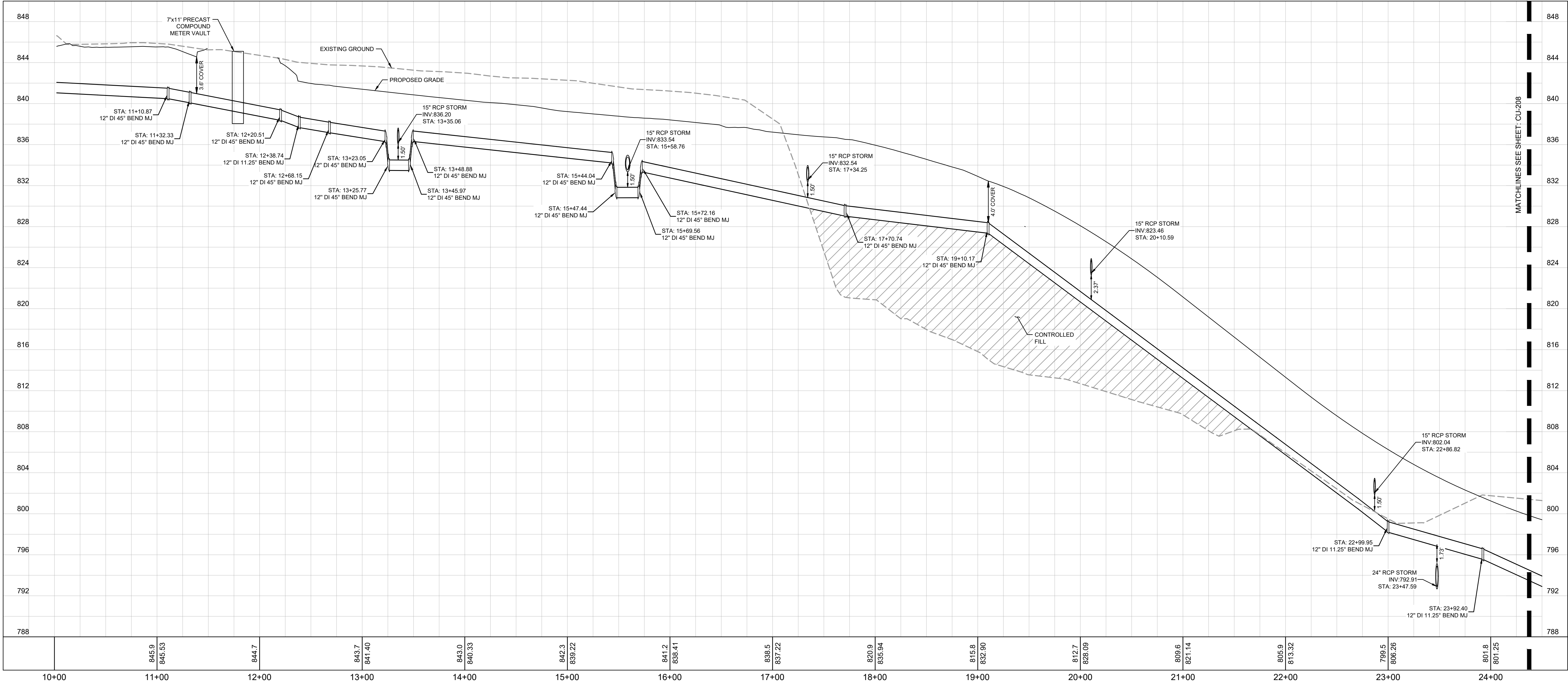
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| PROJECT HERCULES         | SEWER PROFILES | VA                 | APPOMATTOX COUNTY | SHEET NUMBER<br>CU-201 |                 |                   |
|                          |                |                    |                   |                        |                 |                   |
|                          |                |                    |                   |                        |                 |                   |
| KHA PROJECT<br>113706001 |                | DATE<br>11/14/2025 | SCALE<br>AS SHOWN | DESIGNED BY<br>STM     | DRAWN BY<br>STM | CHECKED BY<br>JMM |







Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CU-207 WATER PROFILES November 05, 2025 04:51:48pm  
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|             |            |          |             |          |            |
|-------------|------------|----------|-------------|----------|------------|
| KHA PROJECT | DATE       | SCALE    | DESIGNED BY | DRAWN BY | CHECKED BY |
| 113706001   | 11/14/2025 | AS SHOWN | STM         | STM      | JMM        |

PROJECT HERCULES

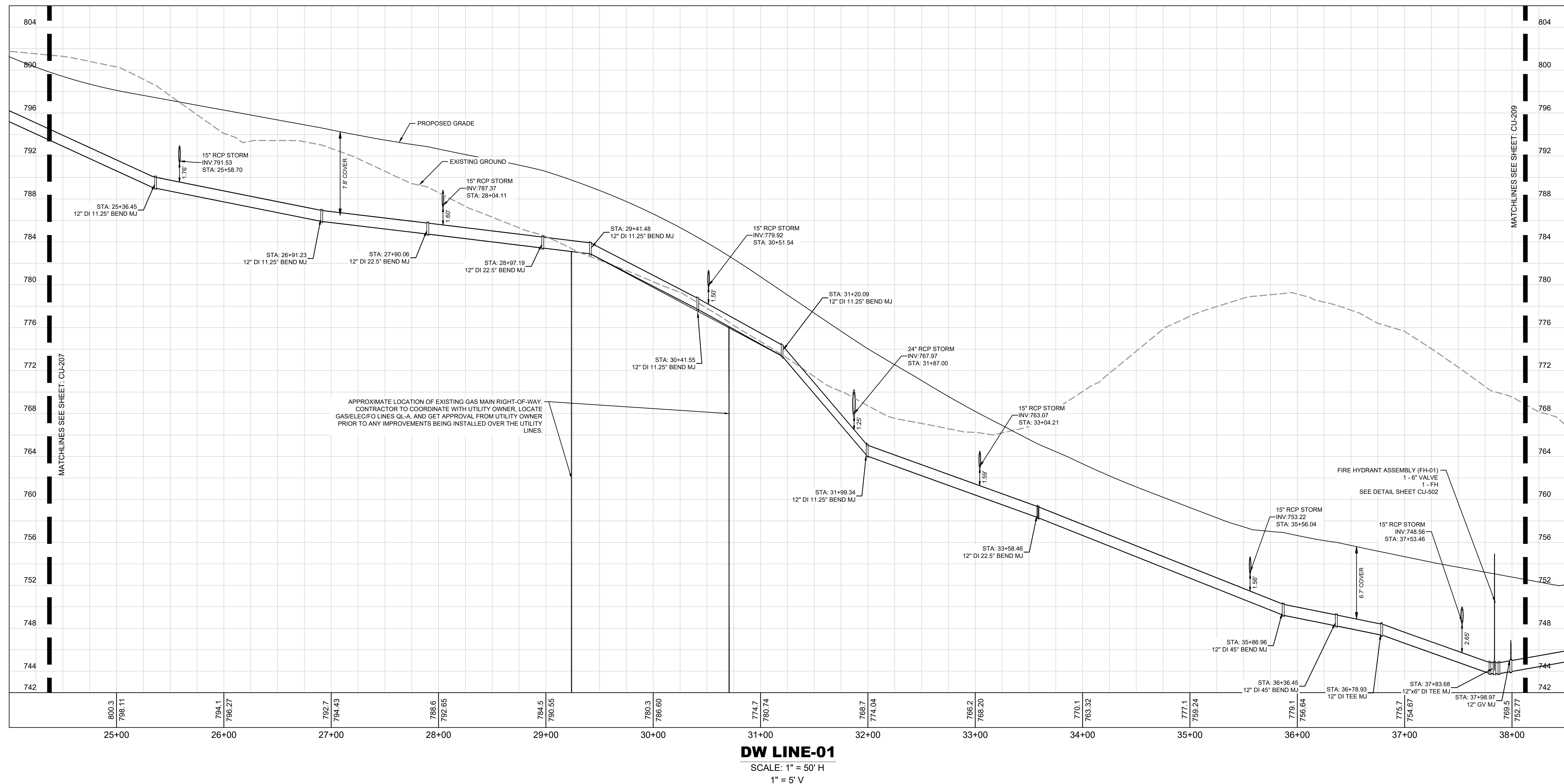
APPOMATTOX COUNTY

SHEET NUMBER  
CU-207

WATER PROFILES

VA





## WATER PROFILES

# PROJECT HERCULES

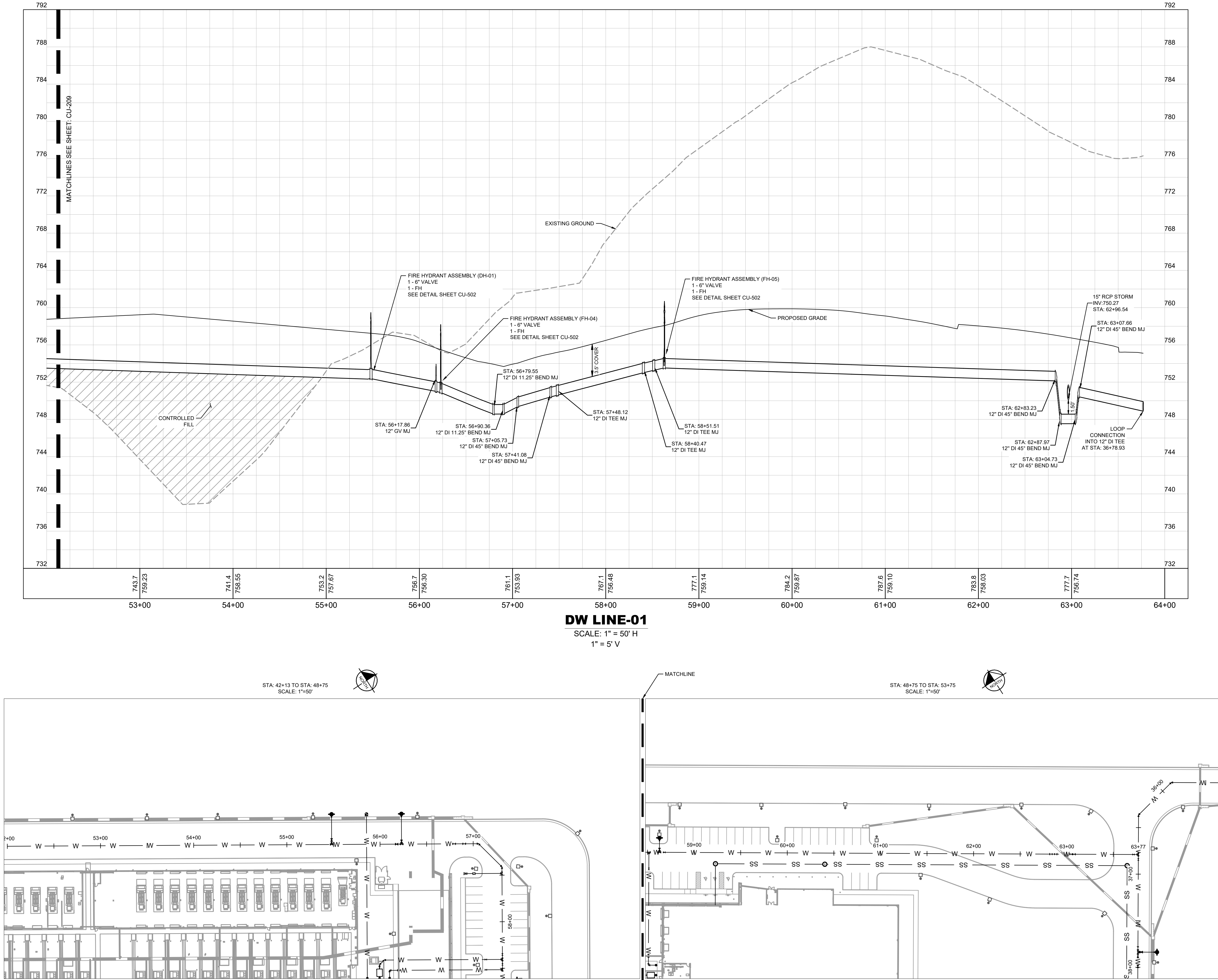
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**CU-208**







Plotted By:McCray, Stephen Sheet Set:Kha Layout:CU-210 WATER PROFILES November 05, 2025 04:52:32pm  
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PROJECT HERCULES

APPOMATTOX COUNTY

SHEET NUMBER  
CU-210

WATER PROFILES

VA

KHA PROJECT  
113706001

DATE  
11/11/2025

SCALE AS SHOWN

DESIGNED BY  
STM

DRAWN BY  
STM

CHECKED BY  
JMM

COMMONWEALTH OF VIRGINIA

JOSH M MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

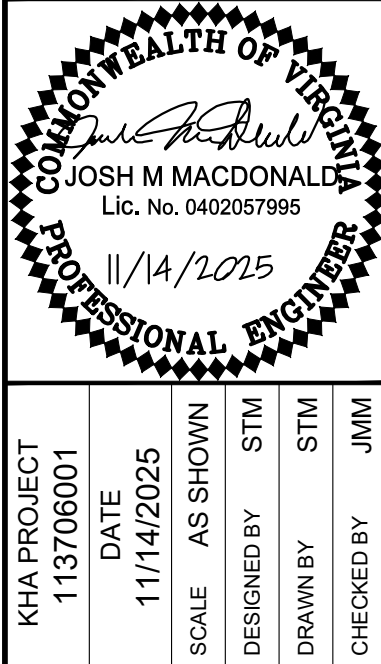
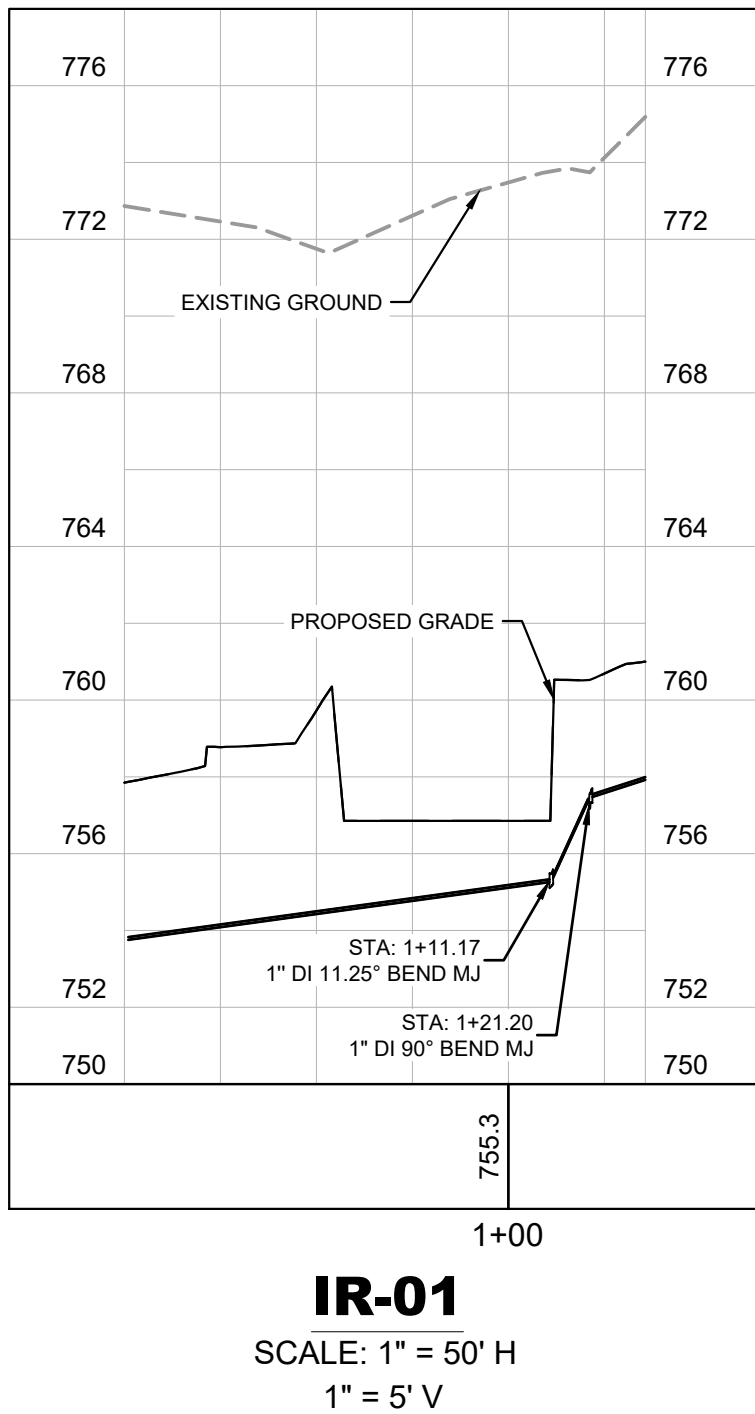
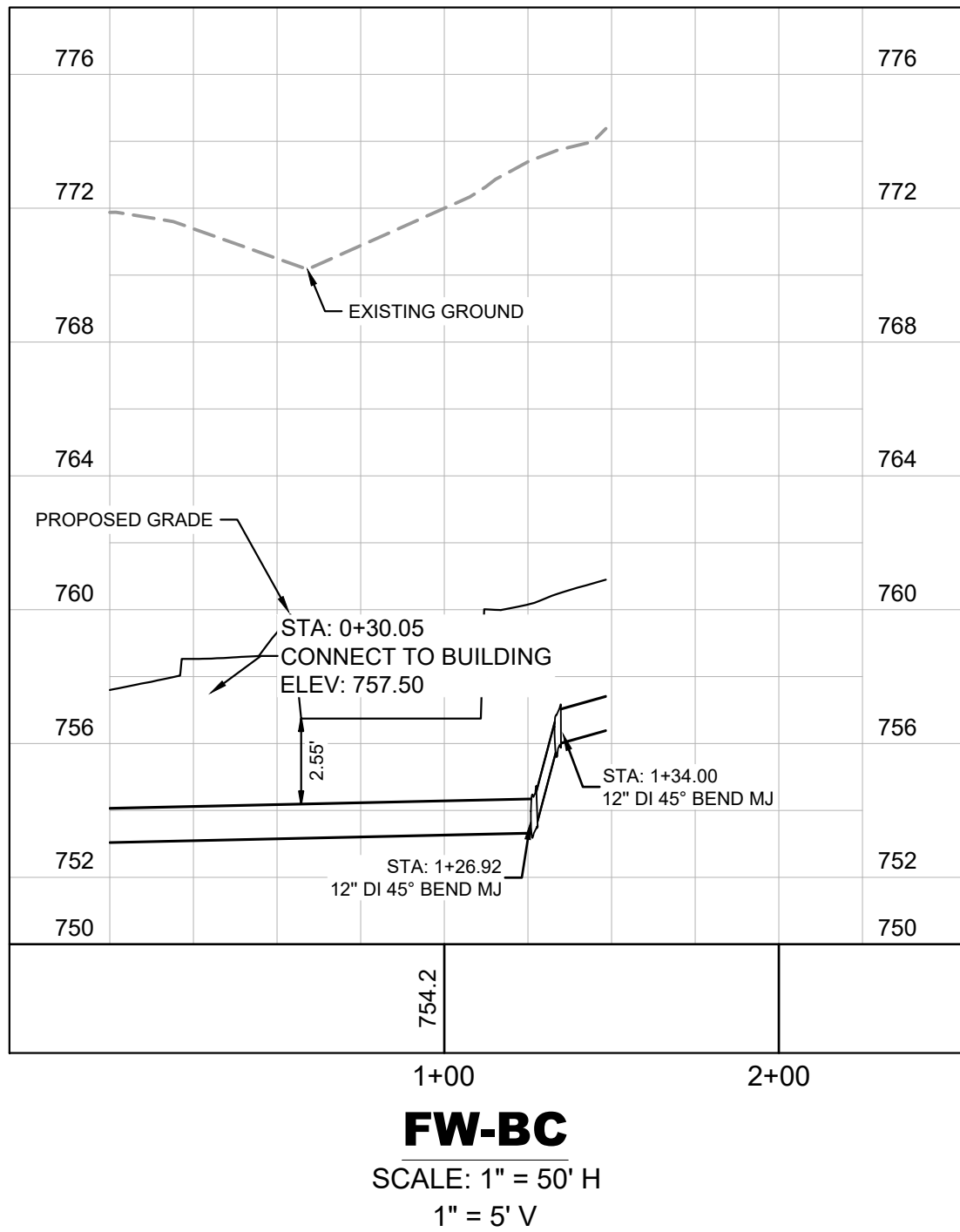
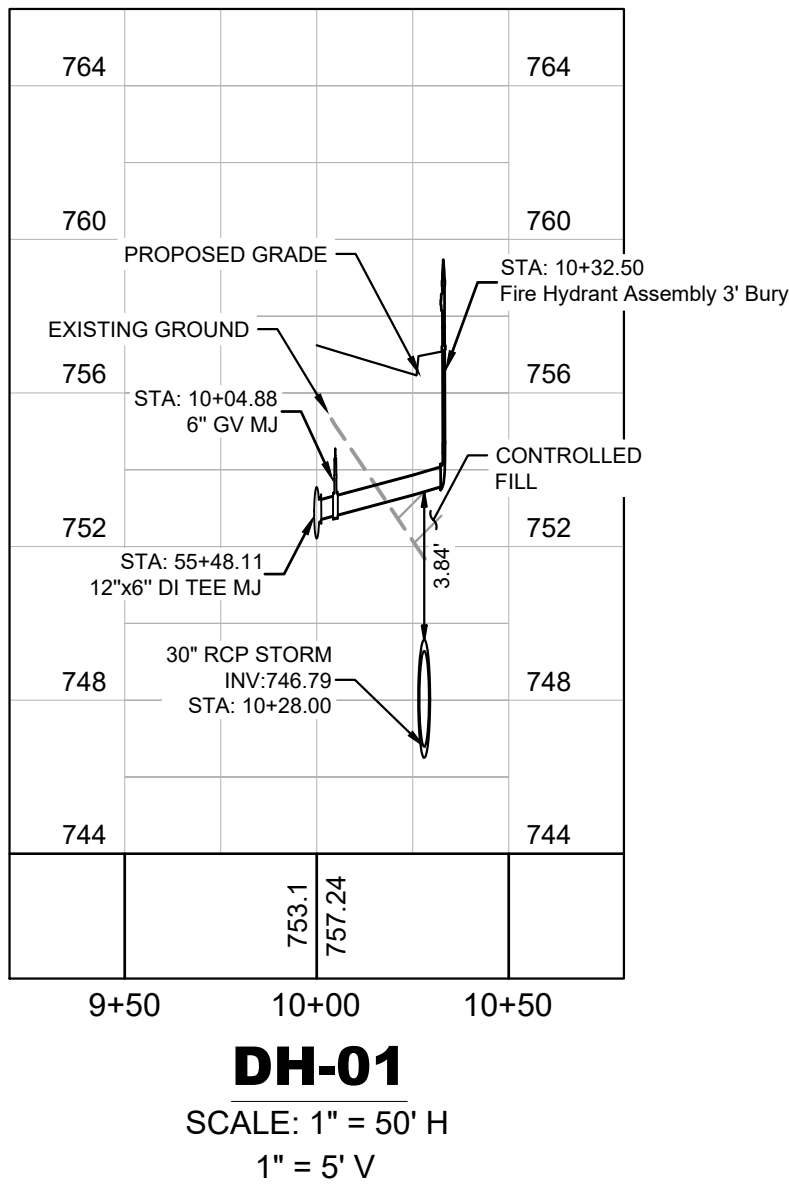
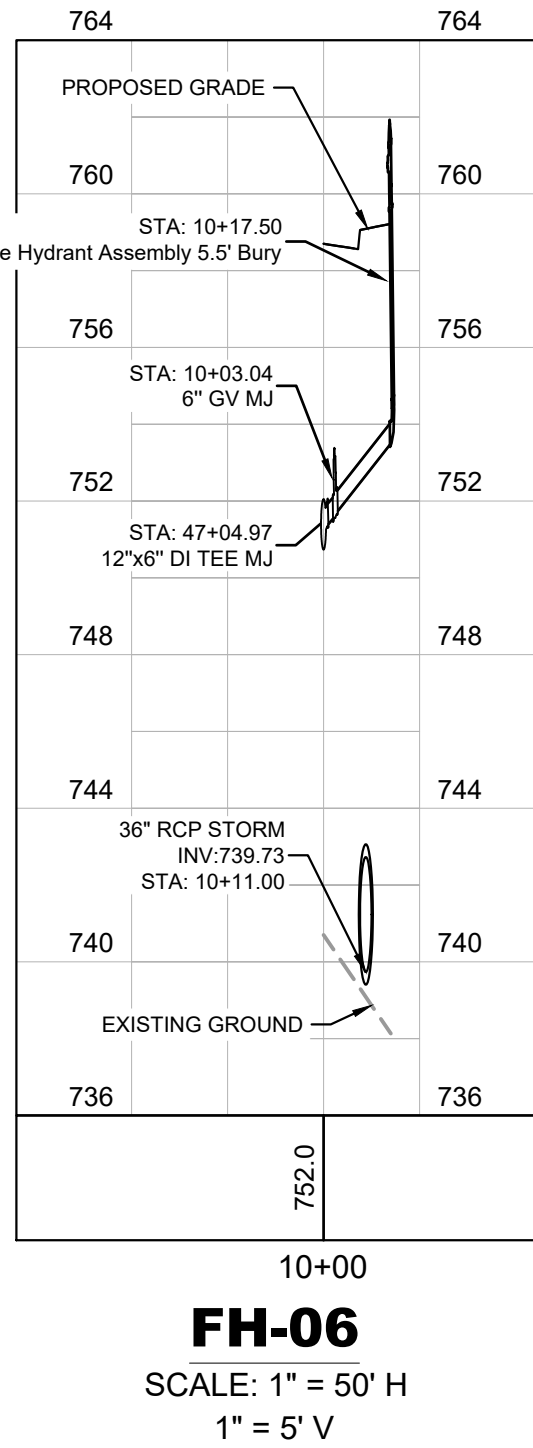
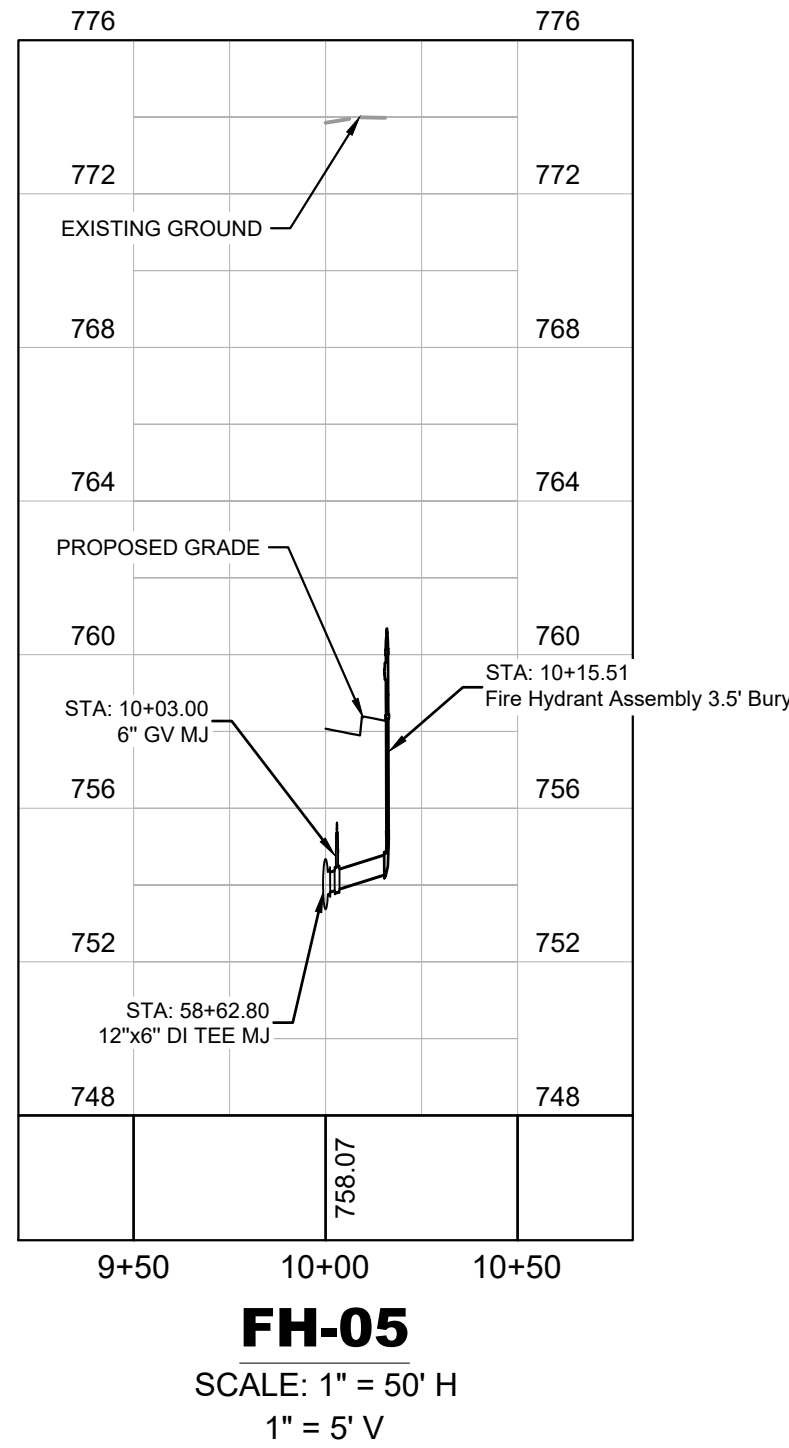
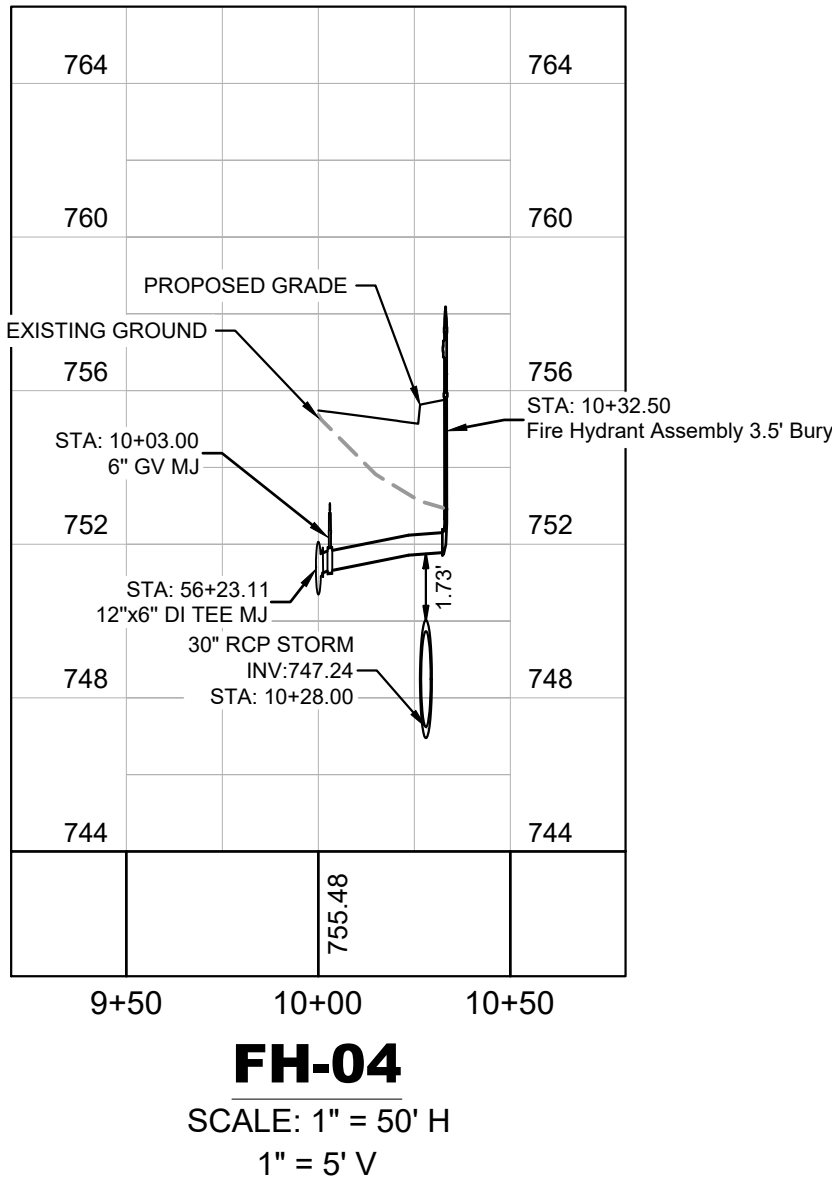
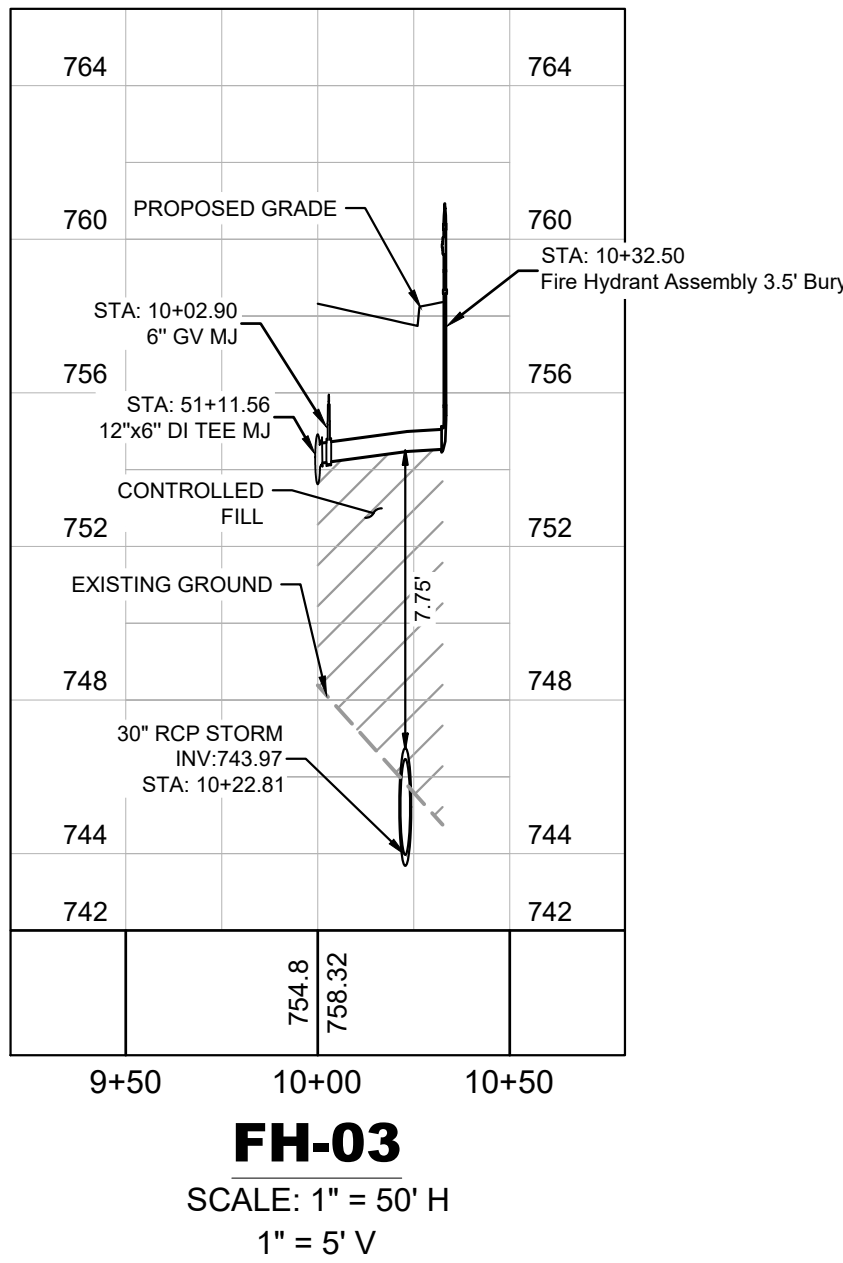
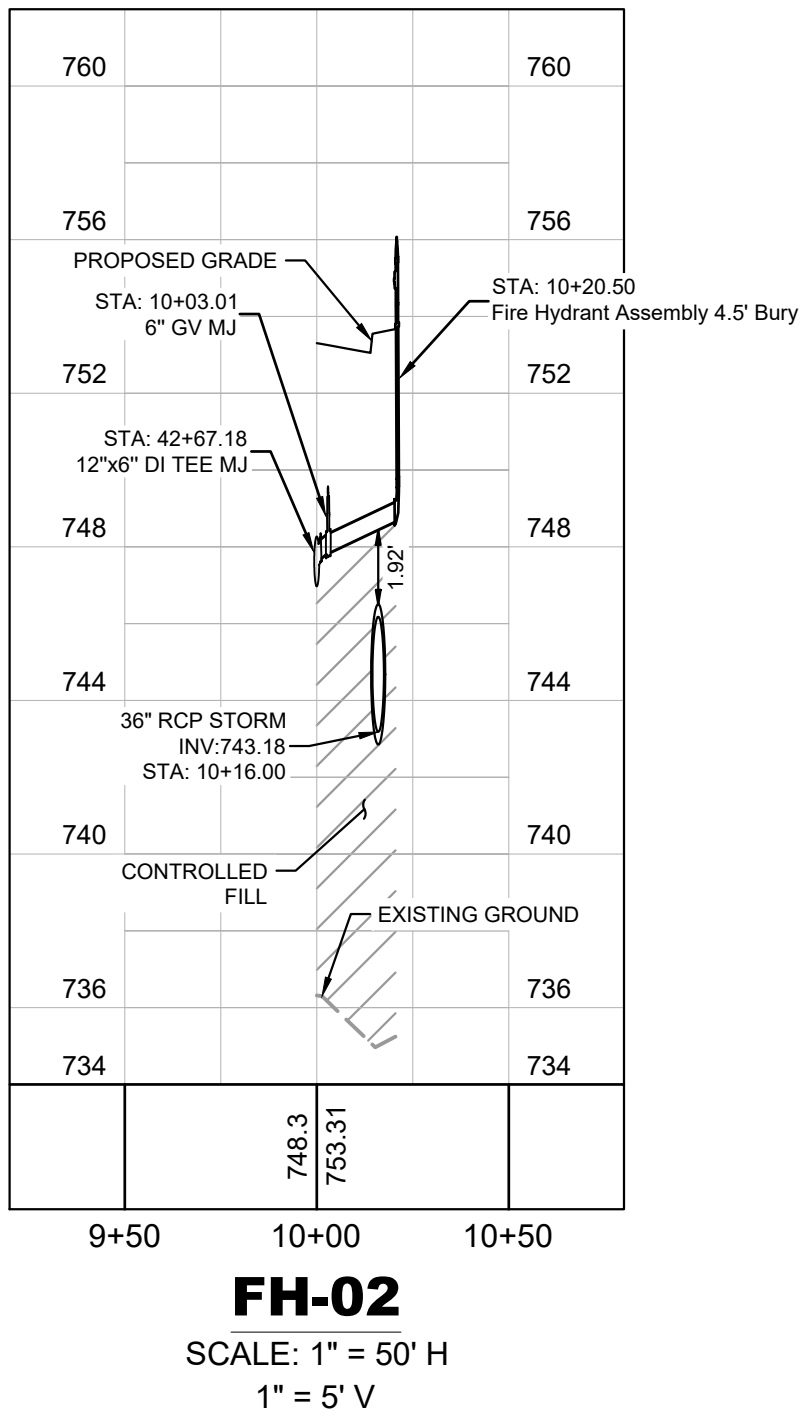
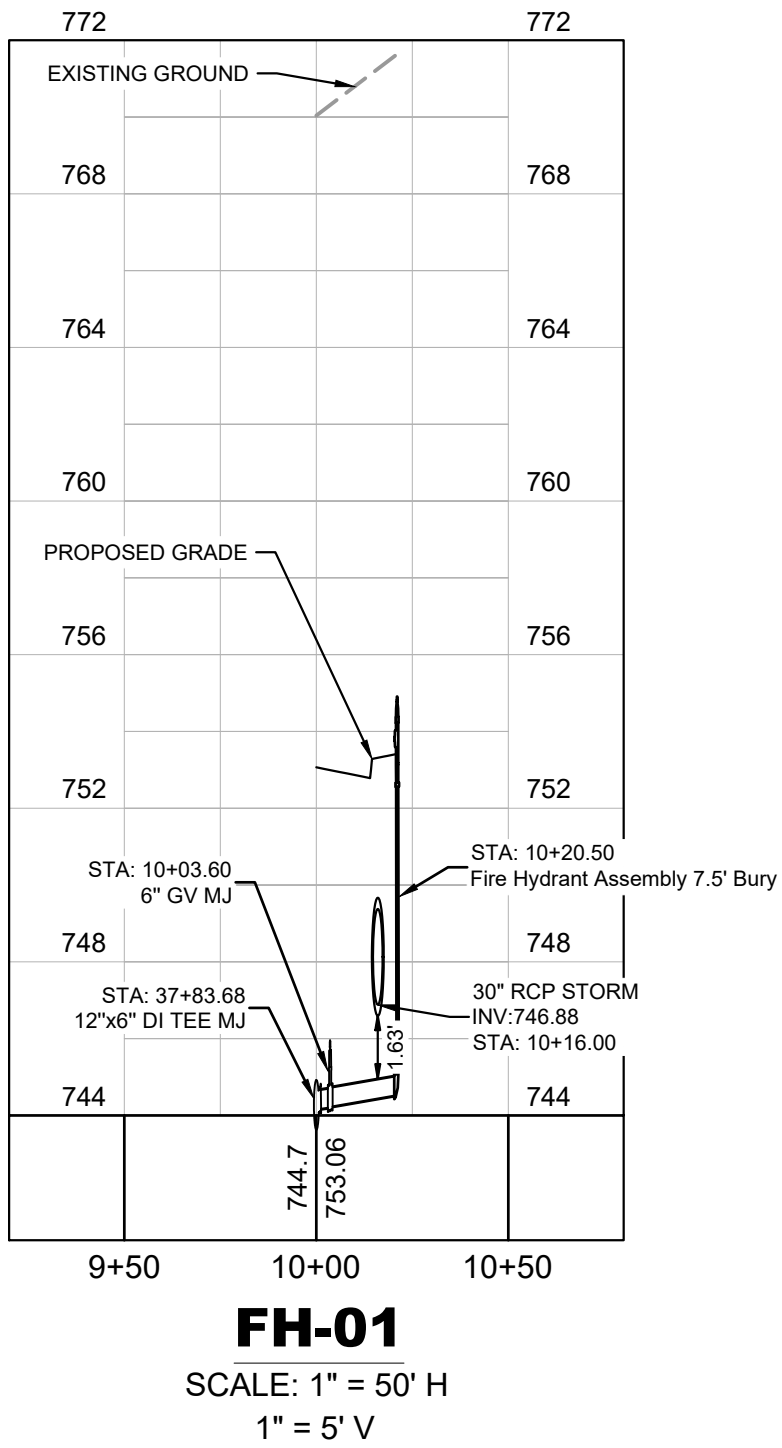
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Jacobs

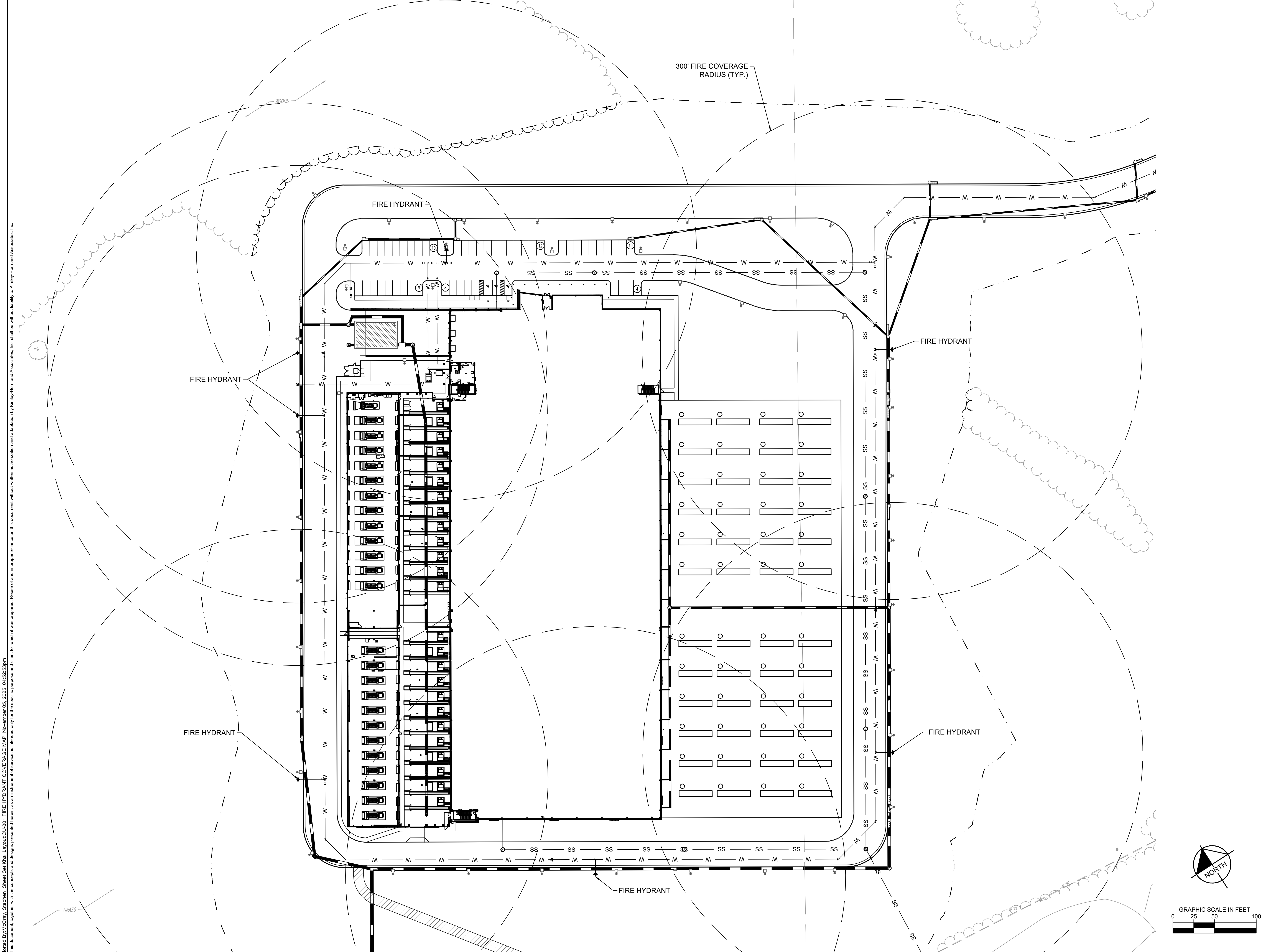


Plotted By: McCray, Stephen Sheet Set: KHA Layout: CU-211 WATER PROFILES November 05, 2025 04:52:39pm  
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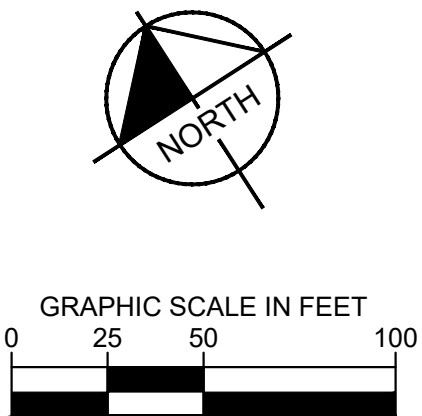


|             |            |          |             |          |            |
|-------------|------------|----------|-------------|----------|------------|
| KHA PROJECT | DATE       | SCALE    | DESIGNED BY | DRAWN BY | CHECKED BY |
| 113706001   | 11/14/2025 | AS SHOWN | STM         | STM      | JMM        |





Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CU-301 FIRE HYDRANT COVERAGE MAP November 05, 2025 04:52:53pm  
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PROJECT HERCULES

SHEET NUMBER  
CU-301

APPOMATTOX COUNTY

VA

FIRE HYDRANT  
COVERAGE MAP

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY STM

DRAWN BY STM

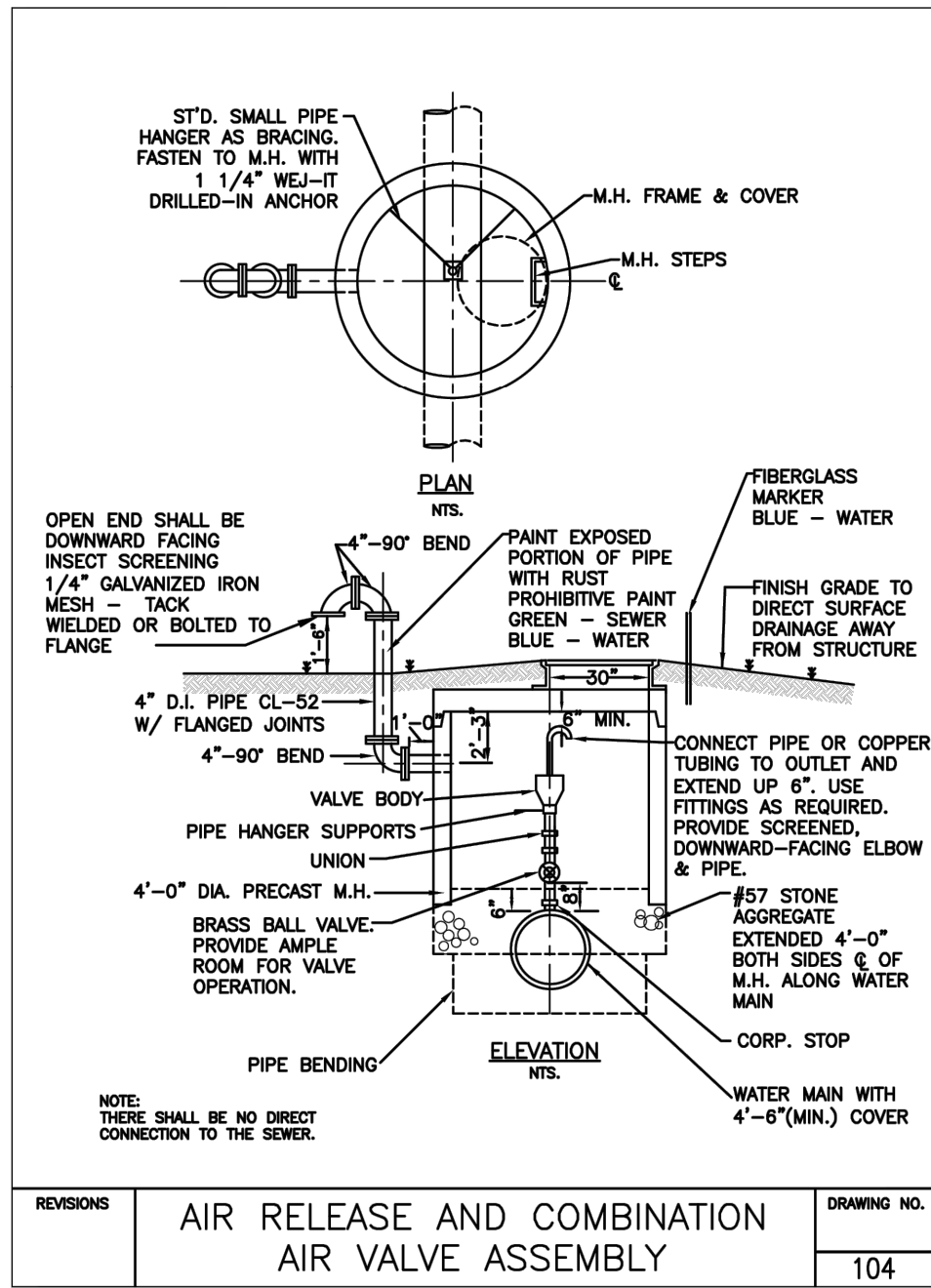
CHECKED BY JMM

COMMONWEALTH OF VIRGINIA  
JOSH M. MACDONALD  
Lic. No. 0402057995  
11/14/2025  
PROFESSIONAL ENGINEER

Kimley-Horn

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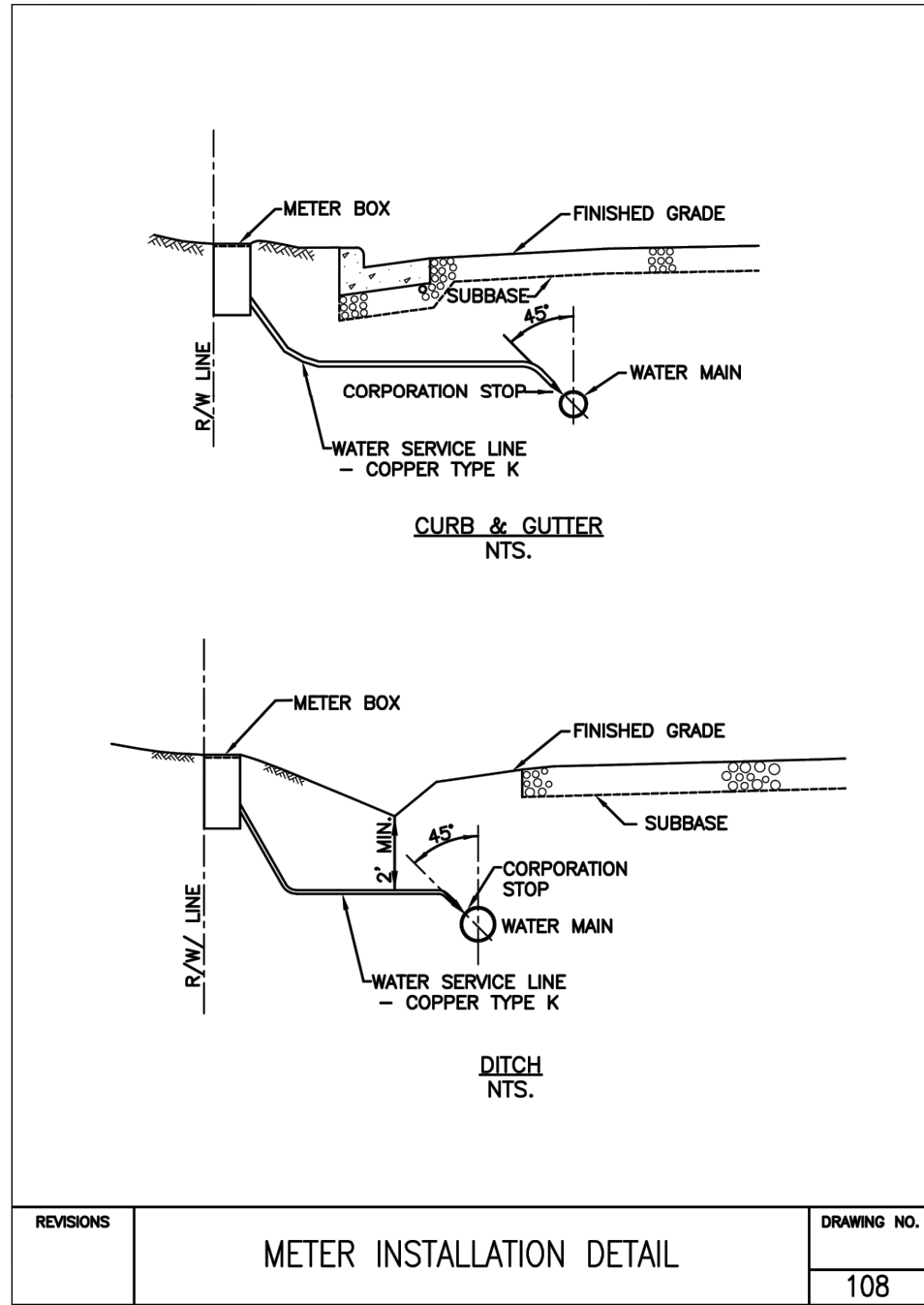




REVISIONS

AIR RELEASE AND COMBINATION AIR VALVE ASSEMBLY

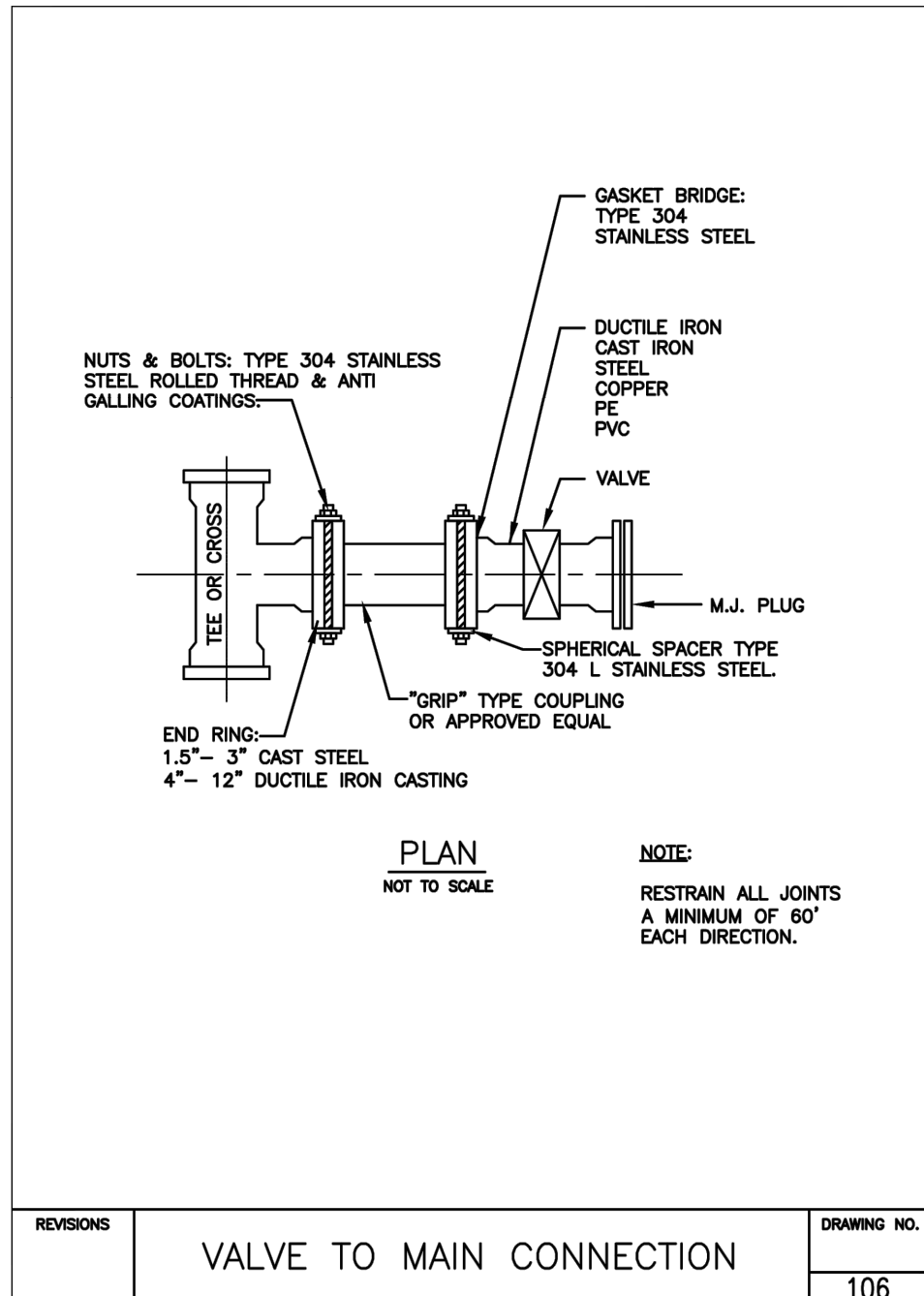
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REVISIONS

METER INSTALLATION DETAIL

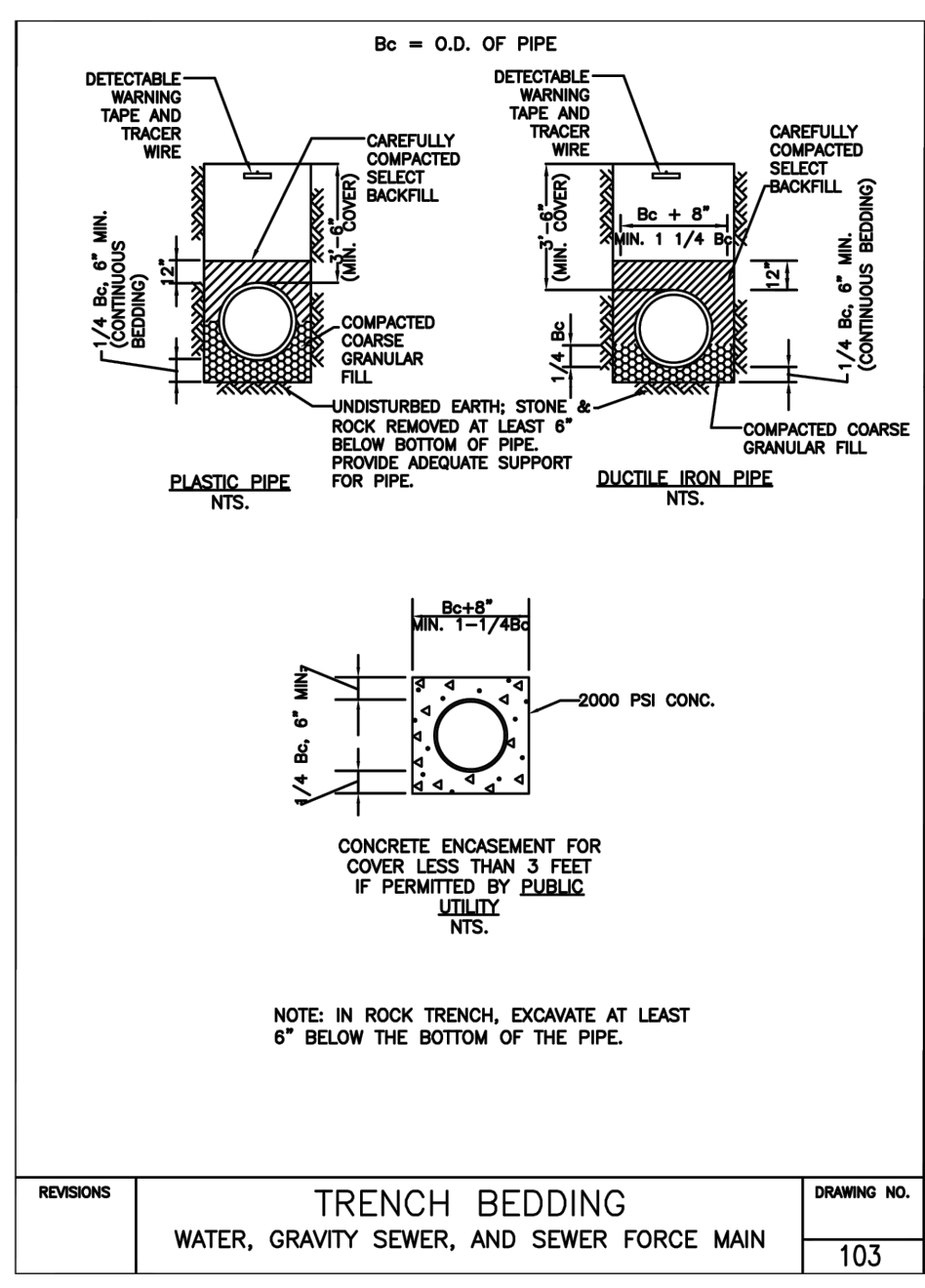
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REVISIONS

VALVE TO MAIN CONNECTION

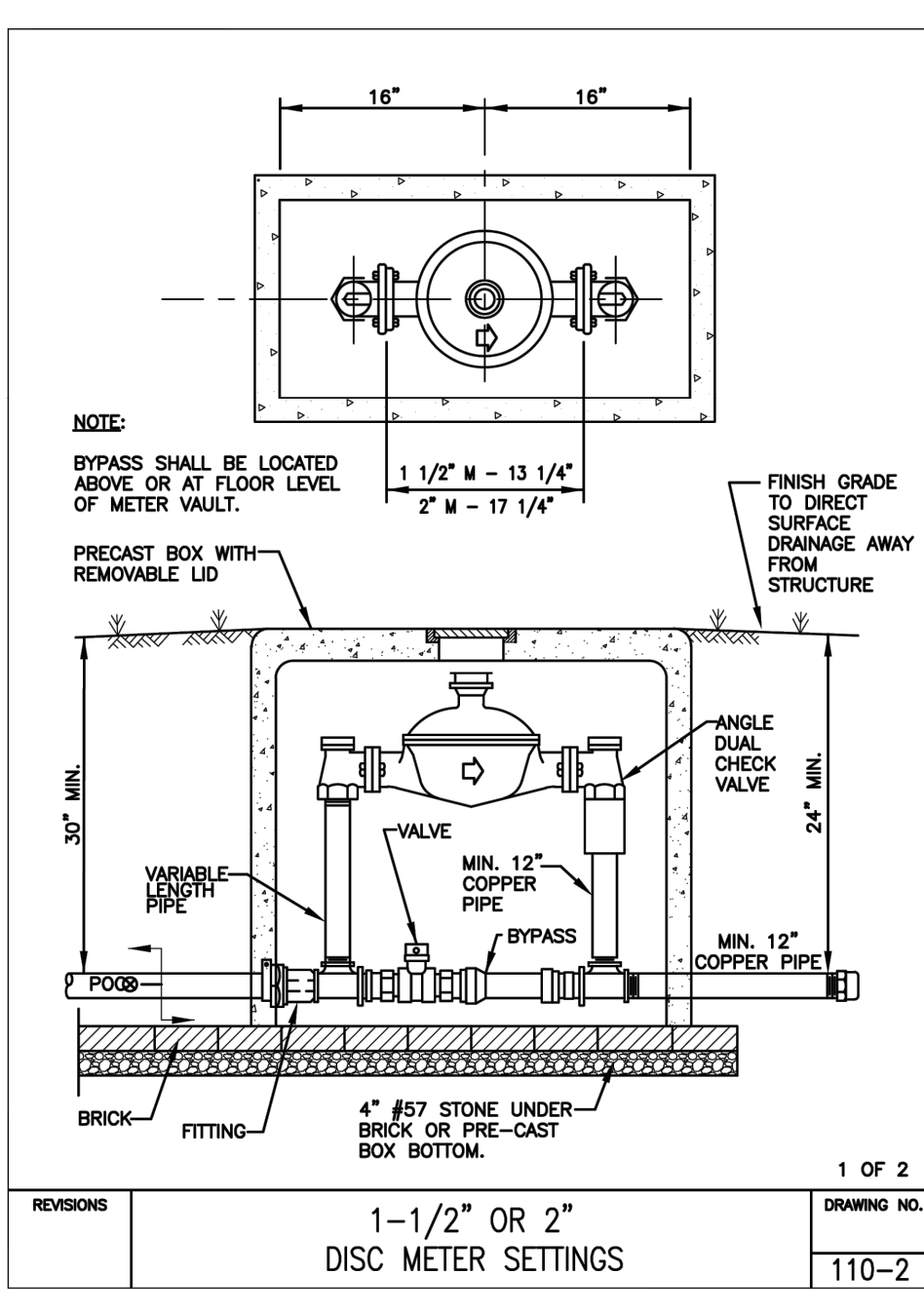
DRAWING NO. 106



REVISIONS

TRENCH BEDDING WATER, GRAVITY SEWER, AND SEWER FORCE MAIN

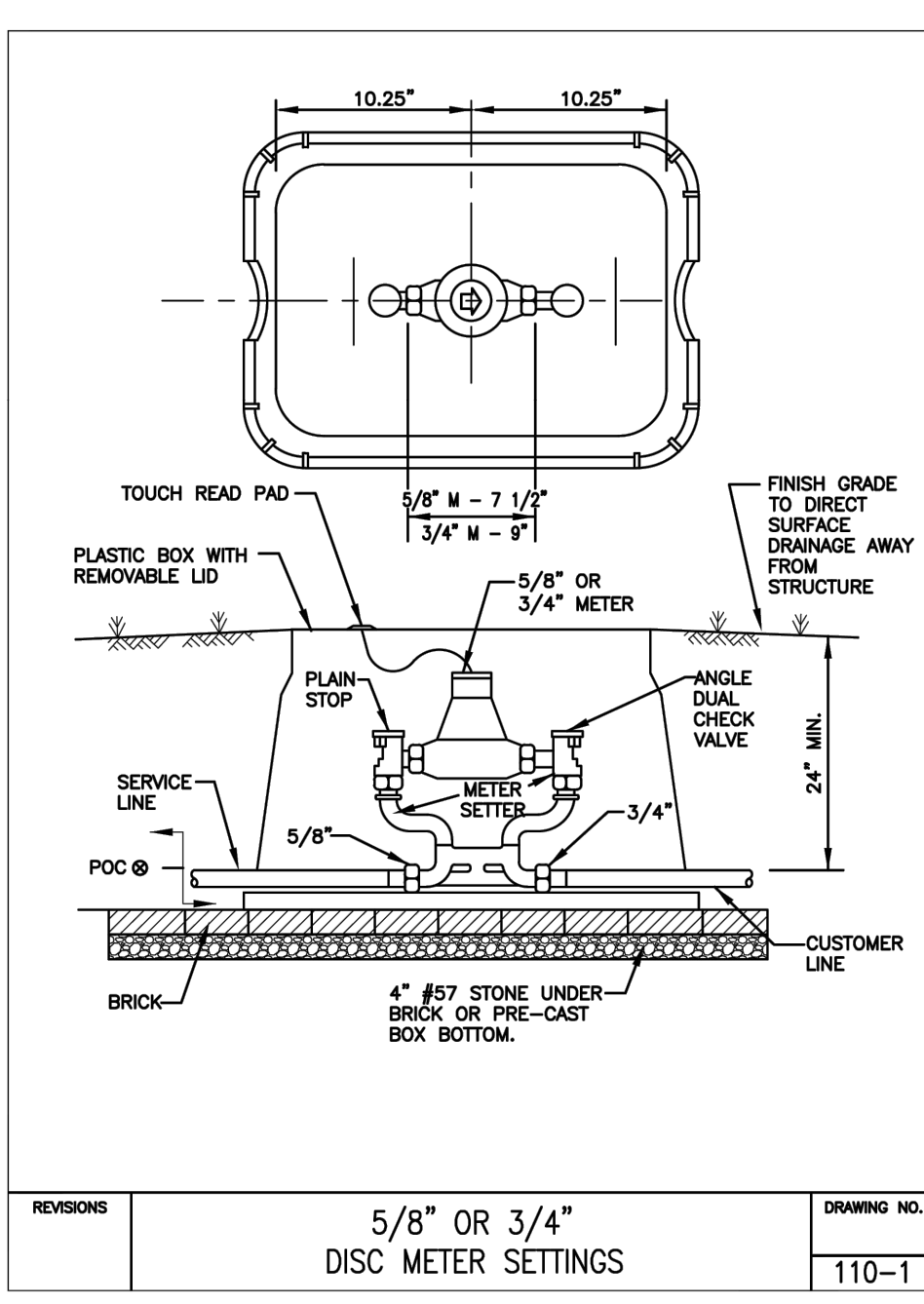
DRAWING NO. 103



REVISIONS

1-1/2" OR 2" DISC METER SETTINGS

DRAWING NO. 110-2



REVISIONS

5/8" OR 3/4" DISC METER SETTINGS

DRAWING NO. 110-1

Meter Sizing Form

Applicant Name: Josh MacDonald Date: 7/10/2025

Address: 6806 Paragon Place, Suite 310, Richmond, VA 23230 Tax Map # 63 A 80

Building Address: N/A Phone # 804-462-9704

Development Name: Project Hercules

| Domestic Demand                              | Flow Rate @ 35 gpm | No. of Ex. Fixtures | Flow Rate @ 35 gpm | Flow Rate @ 35 gpm |
|----------------------------------------------|--------------------|---------------------|--------------------|--------------------|
| Bathrooms                                    | 10                 | 10                  | 10                 | 10                 |
| Kitchen Sink                                 | 10                 | 10                  | 10                 | 10                 |
| Laundry                                      | 10                 | 10                  | 10                 | 10                 |
| Laundry Tray                                 | 10                 | 10                  | 10                 | 10                 |
| Head (Shower Only)                           | 10                 | 10                  | 10                 | 10                 |
| Unaid                                        | 10                 | 10                  | 10                 | 10                 |
| Wash Sink (each Set of Fixtures)             | 10                 | 10                  | 10                 | 10                 |
| Water Closet                                 | 10                 | 10                  | 10                 | 10                 |
| Disinfectant                                 | 10                 | 10                  | 10                 | 10                 |
| Washing Machine                              | 10                 | 10                  | 10                 | 10                 |
| Hose Connection (Wash Down)                  | 10                 | 10                  | 10                 | 10                 |
| Hose (go Pt. Wash Down)                      | 10                 | 10                  | 10                 | 10                 |
| Other                                        | 10                 | 10                  | 10                 | 10                 |
| Combined Flow Rate Total                     | 10                 | 10                  | 10                 | 10                 |
| Domestic Flow Rate Demand                    | 10                 | 10                  | 10                 | 10                 |
| Equivalent Fixed Flow for Domestic Flow Rate | 10                 | 10                  | 10                 | 10                 |
| Fixed Flow                                   | 10                 | 10                  | 10                 | 10                 |
| Total Flow                                   | 10                 | 10                  | 10                 | 10                 |

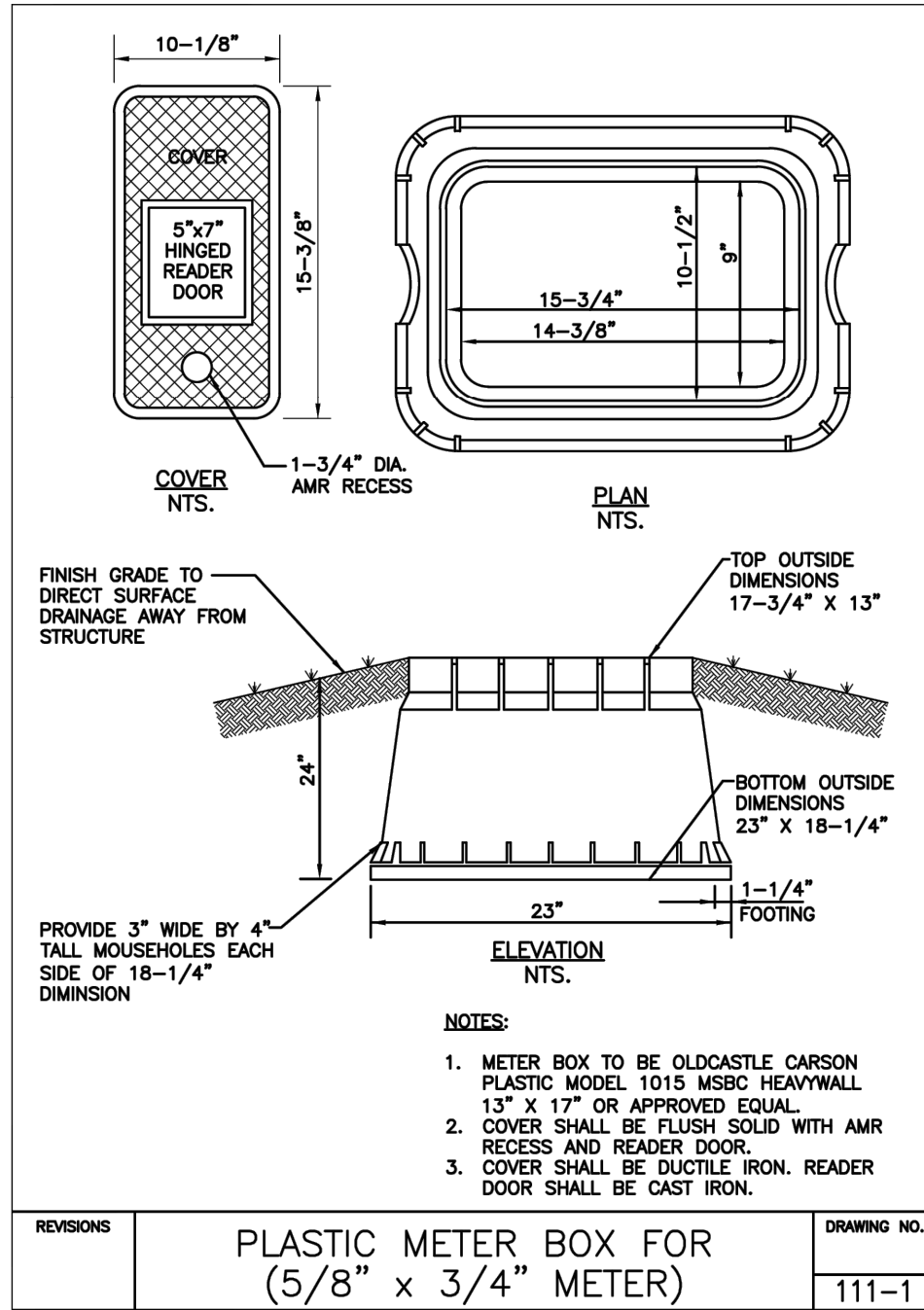
I certify that the information on this form is true and correct.

Applicant's Signature

REVISIONS

PLASTIC METER BOX FOR (5/8" x 3/4" METER)

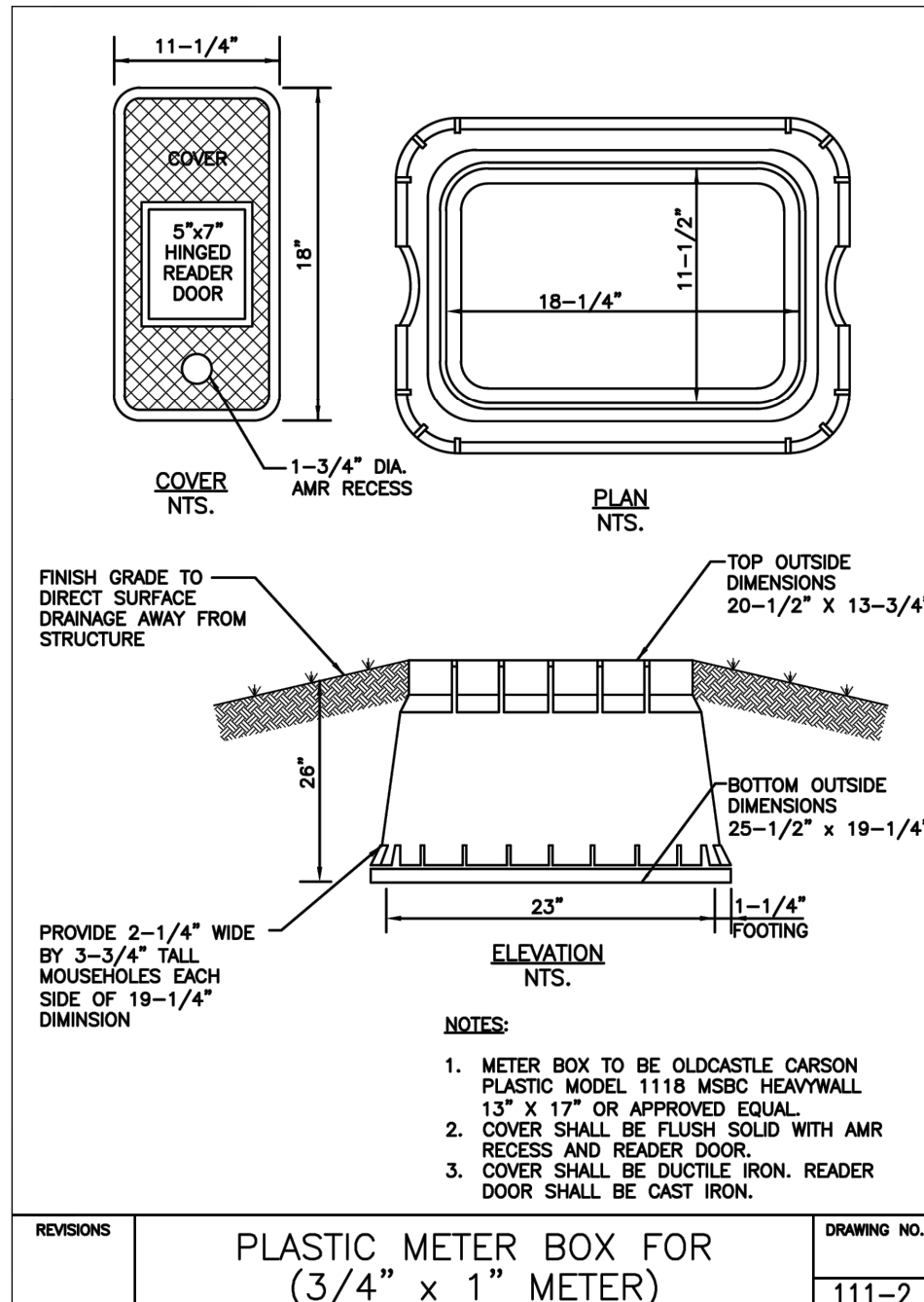
DRAWING NO. 111-1



REVISIONS

PLASTIC METER BOX FOR (3/4" x 1" METER)

DRAWING NO. 111-2



Meter Sizing Form

Applicant Name: Josh MacDonald Date: 7/10/2025

Address: 6806 Paragon Place, Suite 310, Richmond, VA 23230 Tax Map # 63 A 80

Building Address: N/A Phone # 804-462-9704

Development Name: Project Hercules

| Domestic Demand                              | Flow Rate @ 35 gpm | No. of Ex. Fixtures | Flow Rate @ 35 gpm | Flow Rate @ 35 gpm |
|----------------------------------------------|--------------------|---------------------|--------------------|--------------------|
| Bathrooms                                    | 10                 | 10                  | 10                 | 10                 |
| Kitchen Sink                                 | 10                 | 10                  | 10                 | 10                 |
| Laundry                                      | 10                 | 10                  | 10                 | 10                 |
| Laundry Tray                                 | 10                 | 10                  | 10                 | 10                 |
| Head (Shower Only)                           | 10                 | 10                  | 10                 | 10                 |
| Unaid                                        | 10                 | 10                  | 10                 | 10                 |
| Wash Sink (each Set of Fixtures)             | 10                 | 10                  | 10                 | 10                 |
| Water Closet                                 | 10                 | 10                  | 10                 | 10                 |
| Disinfectant                                 | 10                 | 10                  | 10                 | 10                 |
| Washing Machine                              | 10                 | 10                  | 10                 | 10                 |
| Hose Connection (Wash Down)                  | 10                 | 10                  | 10                 | 10                 |
| Hose (go Pt. Wash Down)                      | 10                 | 10                  | 10                 | 10                 |
| Other                                        | 10                 | 10                  | 10                 | 10                 |
| Combined Flow Rate Total                     | 10                 | 10                  | 10                 | 10                 |
| Domestic Flow Rate Demand                    | 10                 | 10                  | 10                 | 10                 |
| Equivalent Fixed Flow for Domestic Flow Rate | 10                 | 10                  | 10                 | 10                 |
| Fixed Flow                                   | 10                 | 10                  | 10                 | 10                 |
| Total Flow                                   | 10                 | 10                  | 10                 | 10                 |

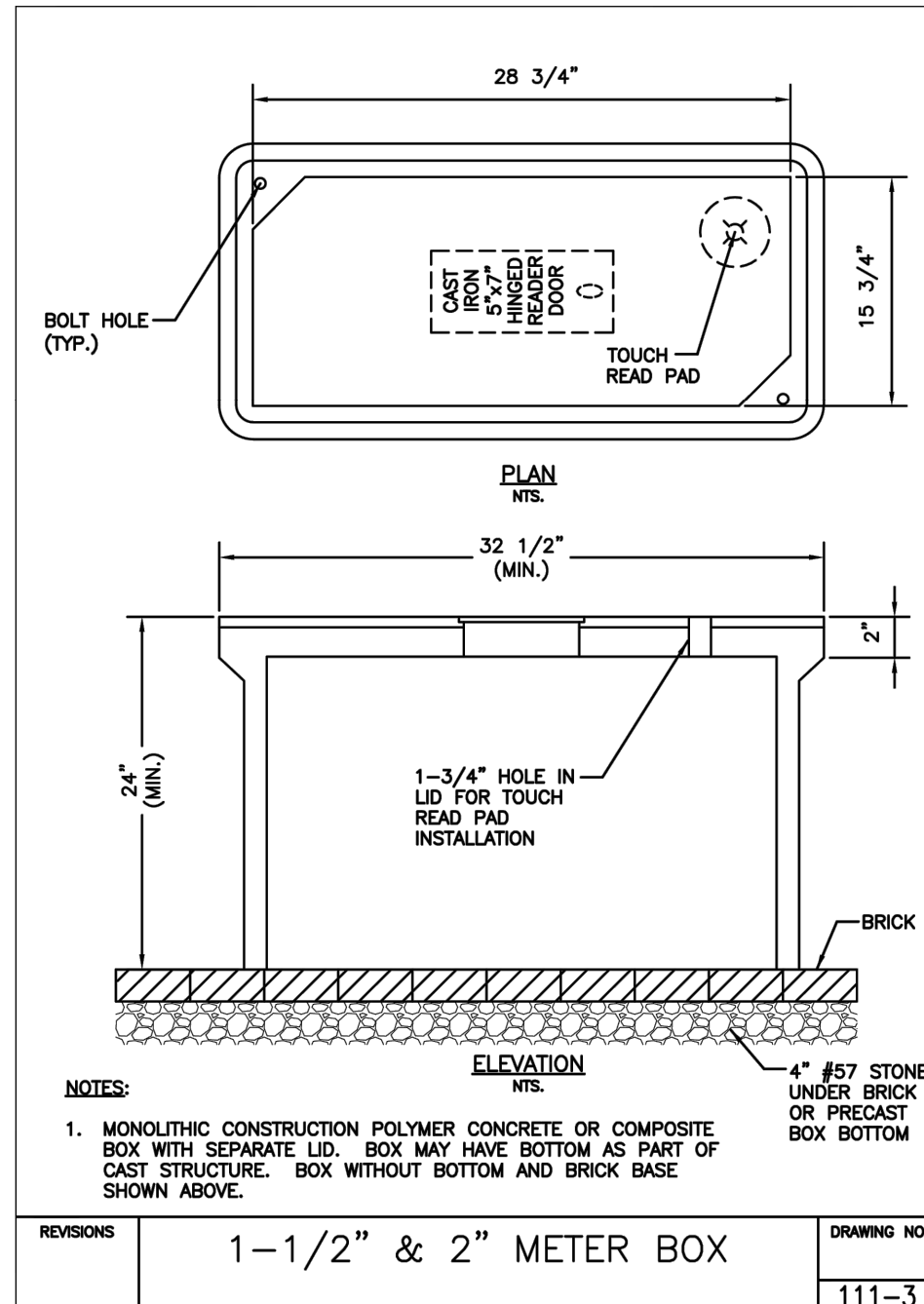
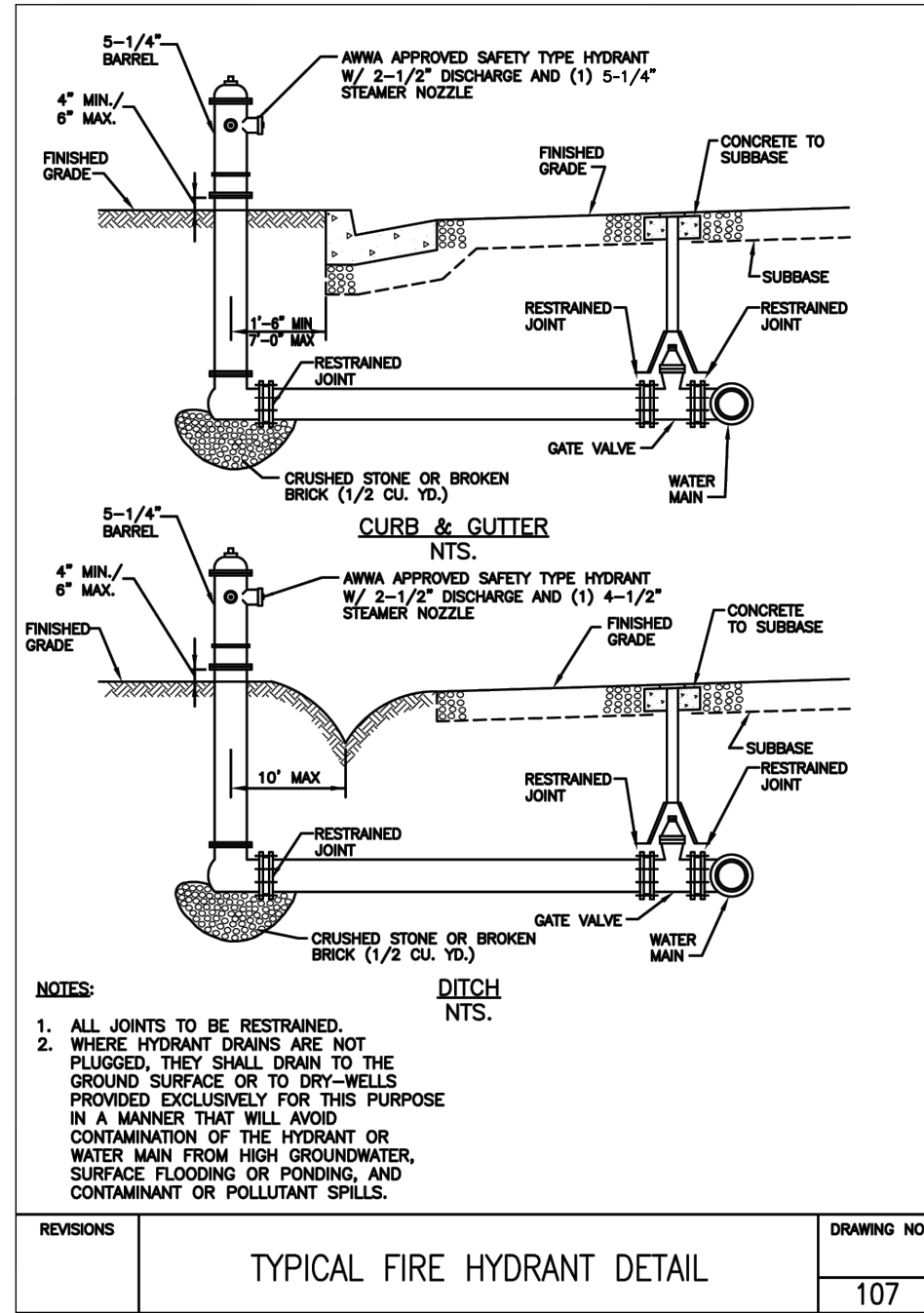
I certify that the information on this form is true and correct.

Applicant's Signature

REVISIONS

TYPICAL FIRE HYDRANT DETAIL

DRAWING NO. 107



REVISIONS

1-1/2" & 2" METER BOX

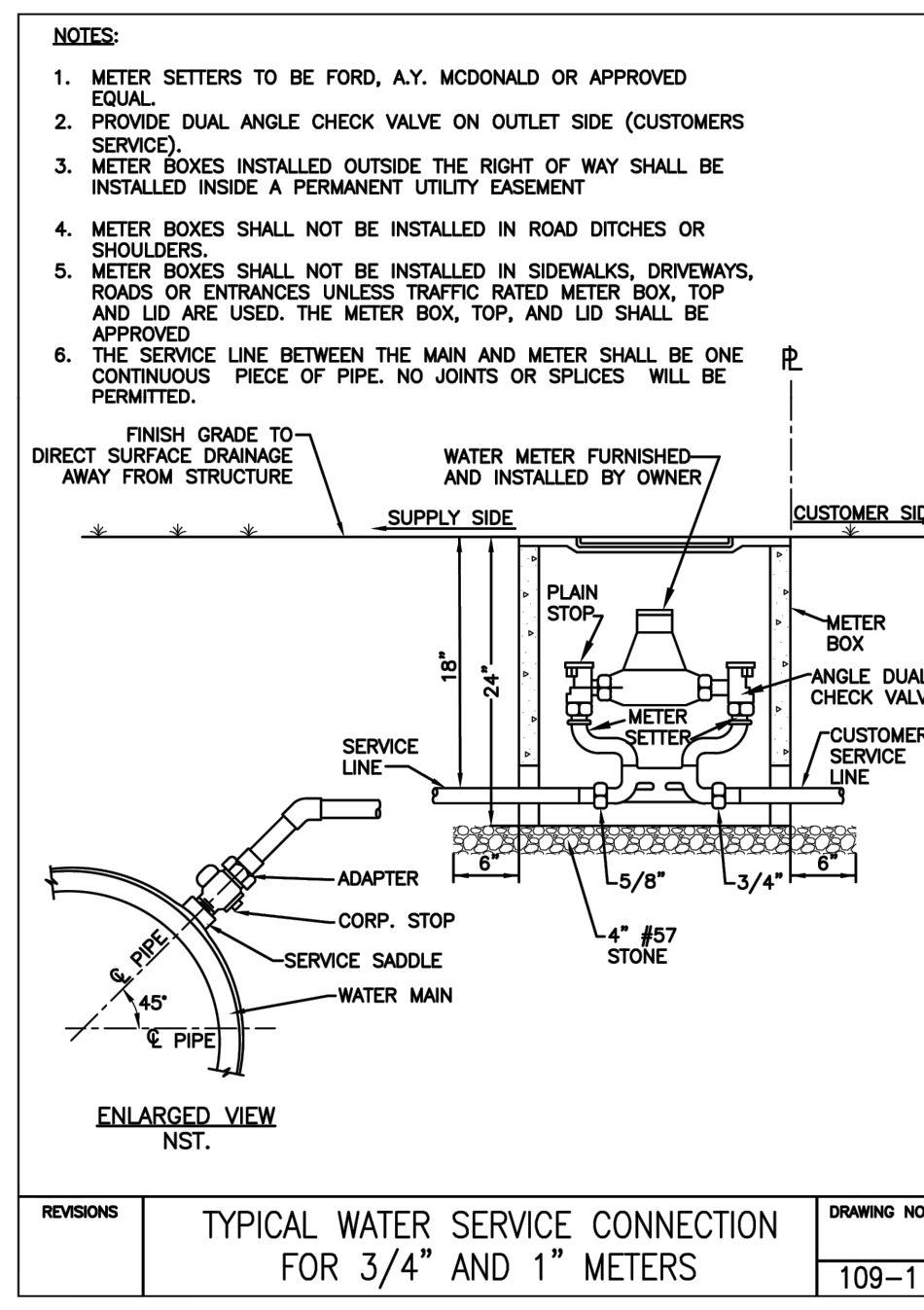
DRAWING NO. 111-3



REVISIONS

TYPICAL WATER SERVICE CONNECTION FOR 3/4" AND 1" METERS

DRAWING NO. 109-1



REVISIONS

NOTES AND MATERIALS LIST FOR 1-1/2" OR 2" DISC METER SETTING

DRAWING NO. 110-3

NOTES:

- ALL METERS SETTERS PROVIDED FOR 1-1/2" & 2" METERS SHALL HAVE REMOVABLE PACK JOINTS SUITABLE FOR COPPER PIPE.
- ALL METERS SETTERS SHALL HAVE SADDLE NUTS, PADLOCK WINGS, AND SHALL BE SIMILAR TO FORD, MUELLER, OR ANY MCDONALD.
- BYPASS SHALL BE PROVIDED.
- METER BOX TO BE AS NEAR TO THE WATER MAIN AS POSSIBLE WITHOUT PLACING BOX IN AREAS SUBJECT TO VEHICULAR TRAFFIC.

| QTY. | DESCRIPTION                                                                                           |
|------|-------------------------------------------------------------------------------------------------------|
| 1    | 1-1/2" DISC METER W/GASKETS, BOLTS AND NUTS                                                           |
| 1    | 1-1/2" FLANGED ANGLE VALVE                                                                            |
| 1    | 1-1/2" ANGLE DUAL CHECK VALVE                                                                         |
| 5    | 1-1/2" BRASS PIPE (2 PCS. 12" LONG; 1 PC. VARIABLE LENGTH; PIPE TO BE CUT AND THREADED BY CONTRACTOR) |
| 2    | 1-1/2" BRASS ELBOWS                                                                                   |
| 1    | 1-1/2" BRASS BLIND CAP                                                                                |
| 1    | 1-1/2" BY-PASS PIPE AND SHUT-OFF VALVE                                                                |

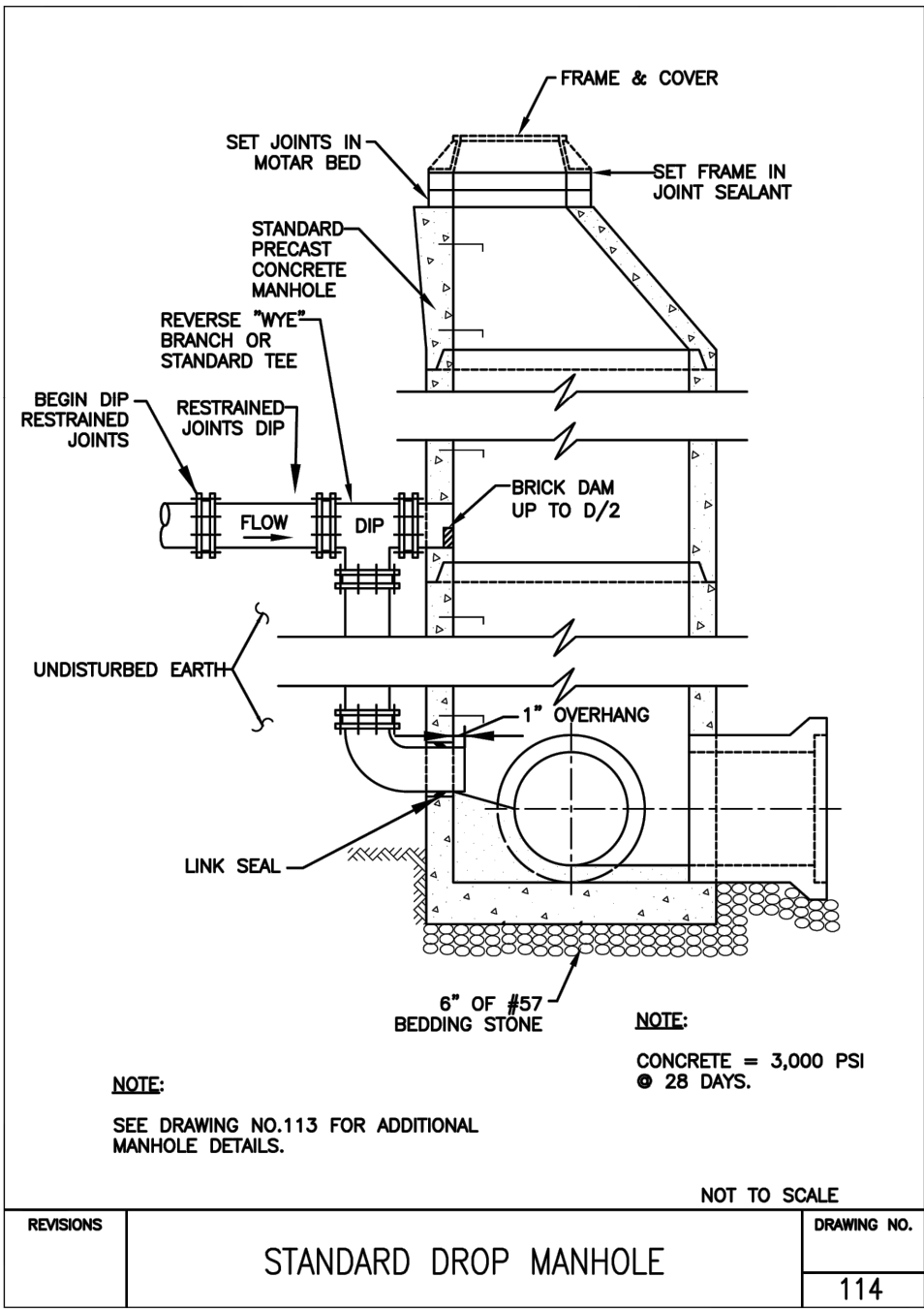
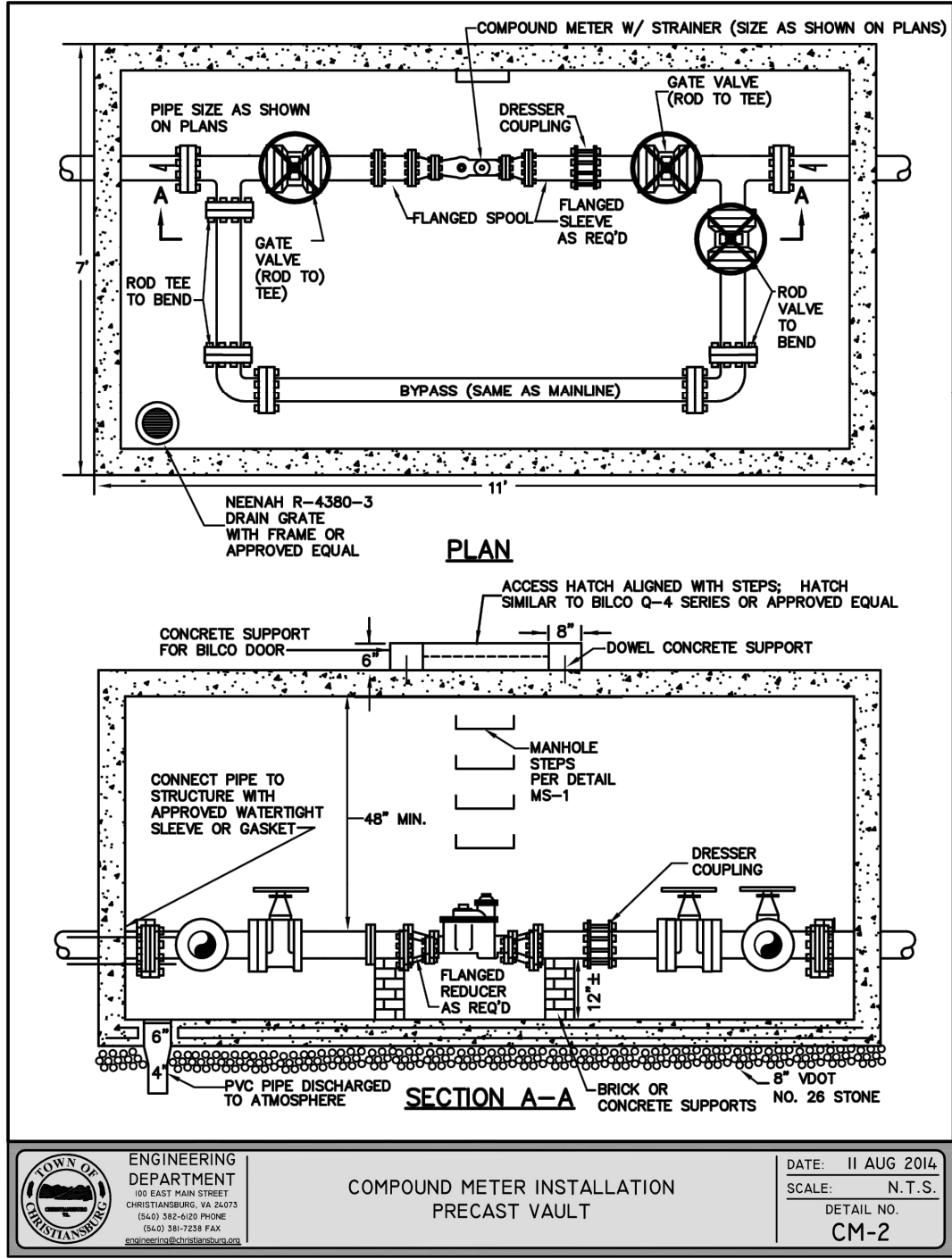
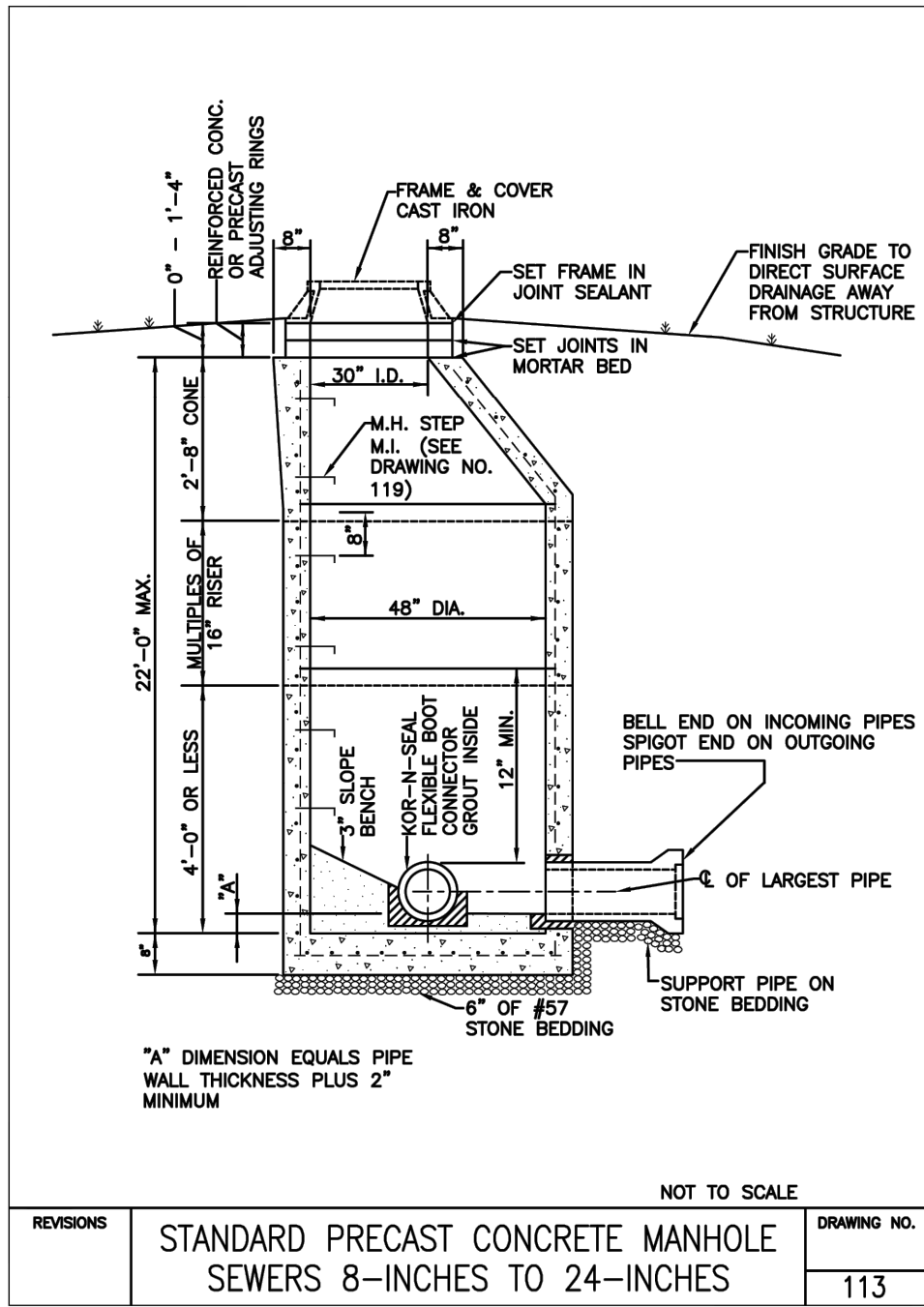
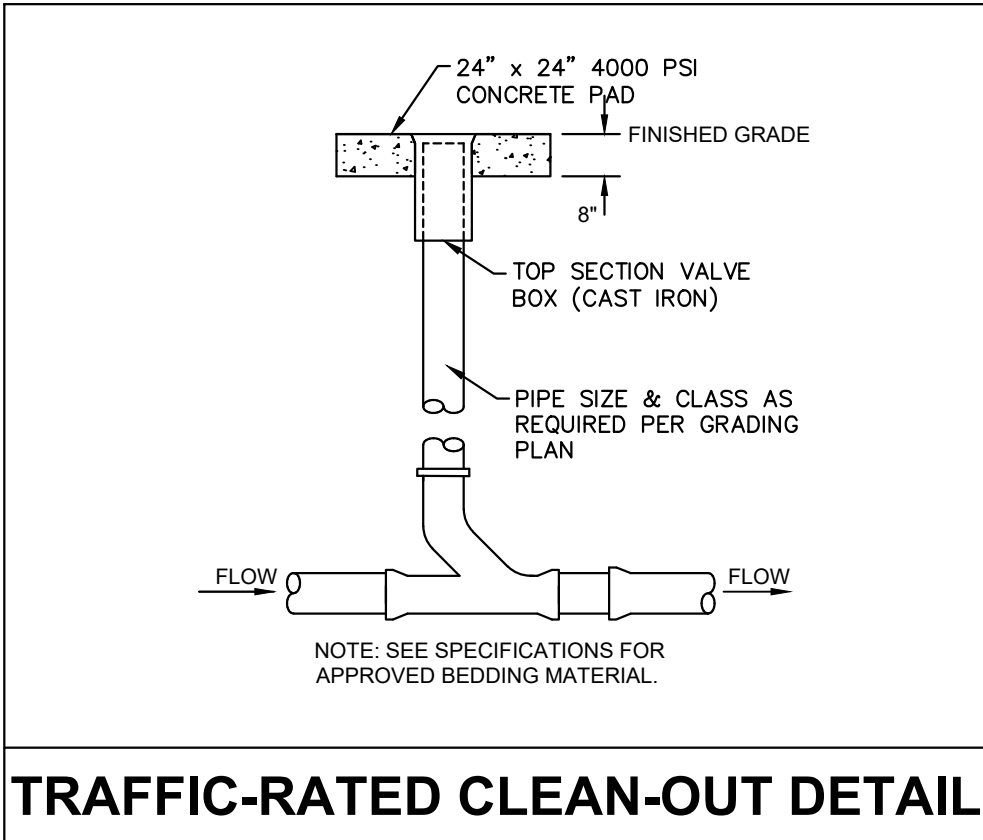
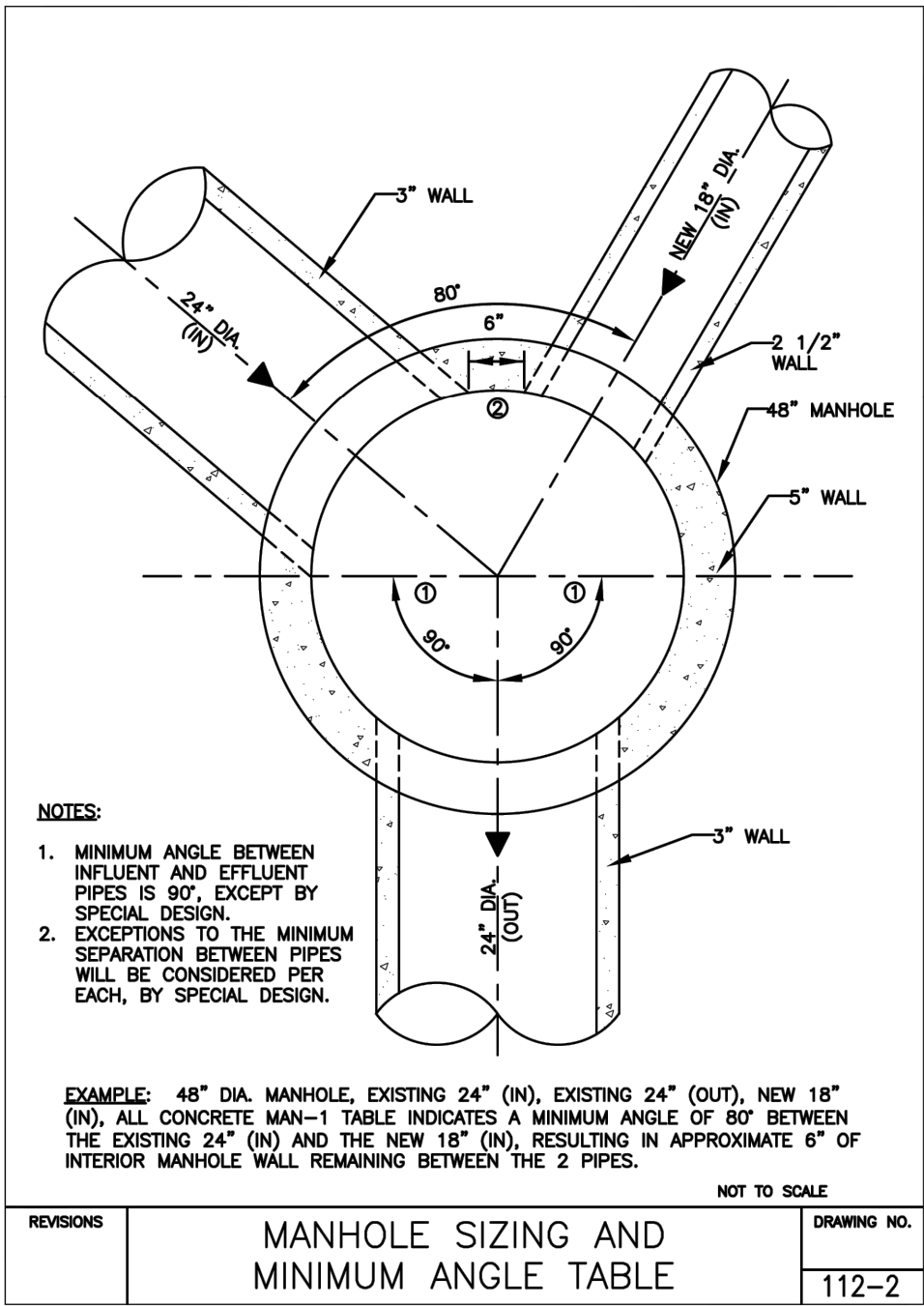
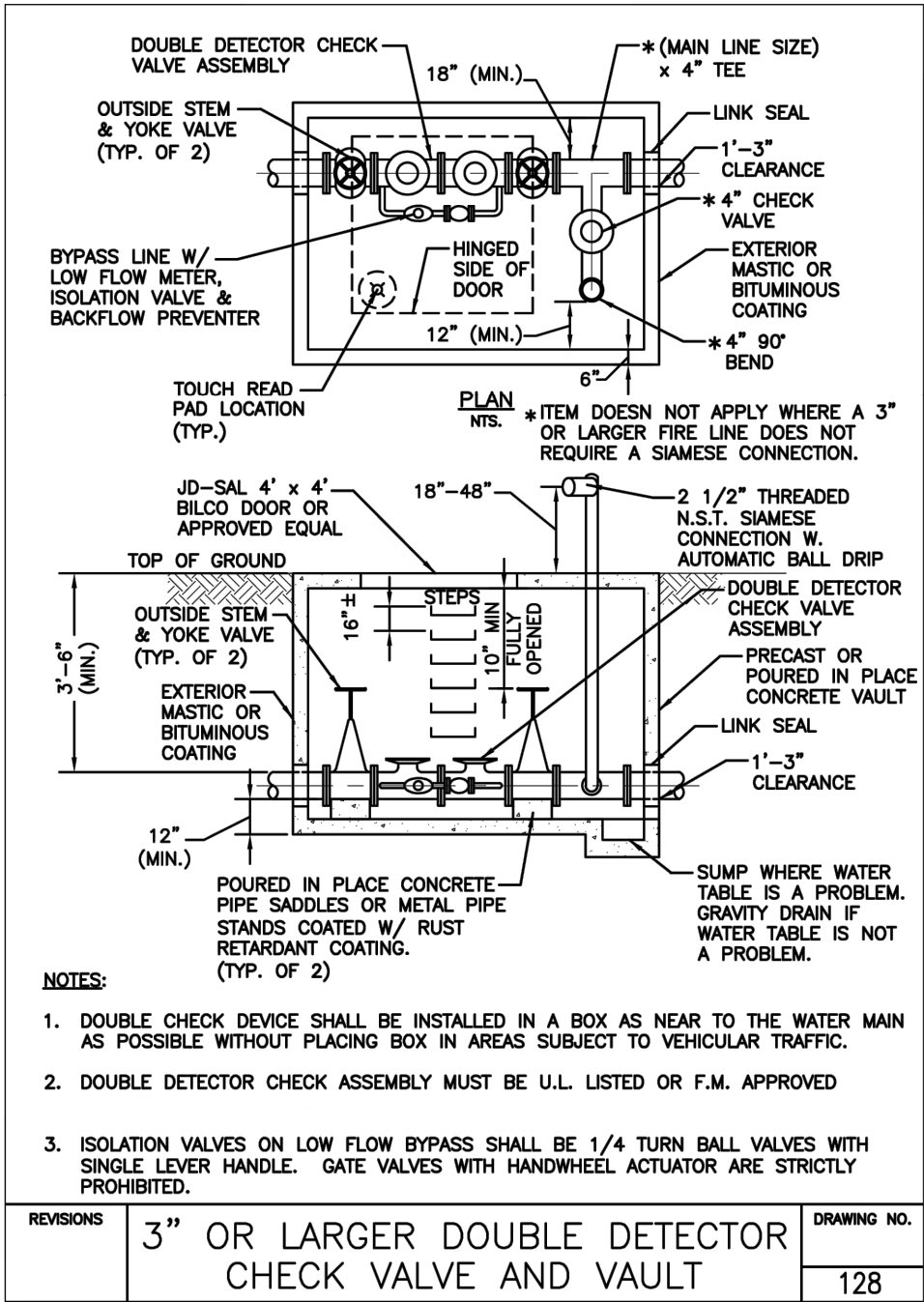
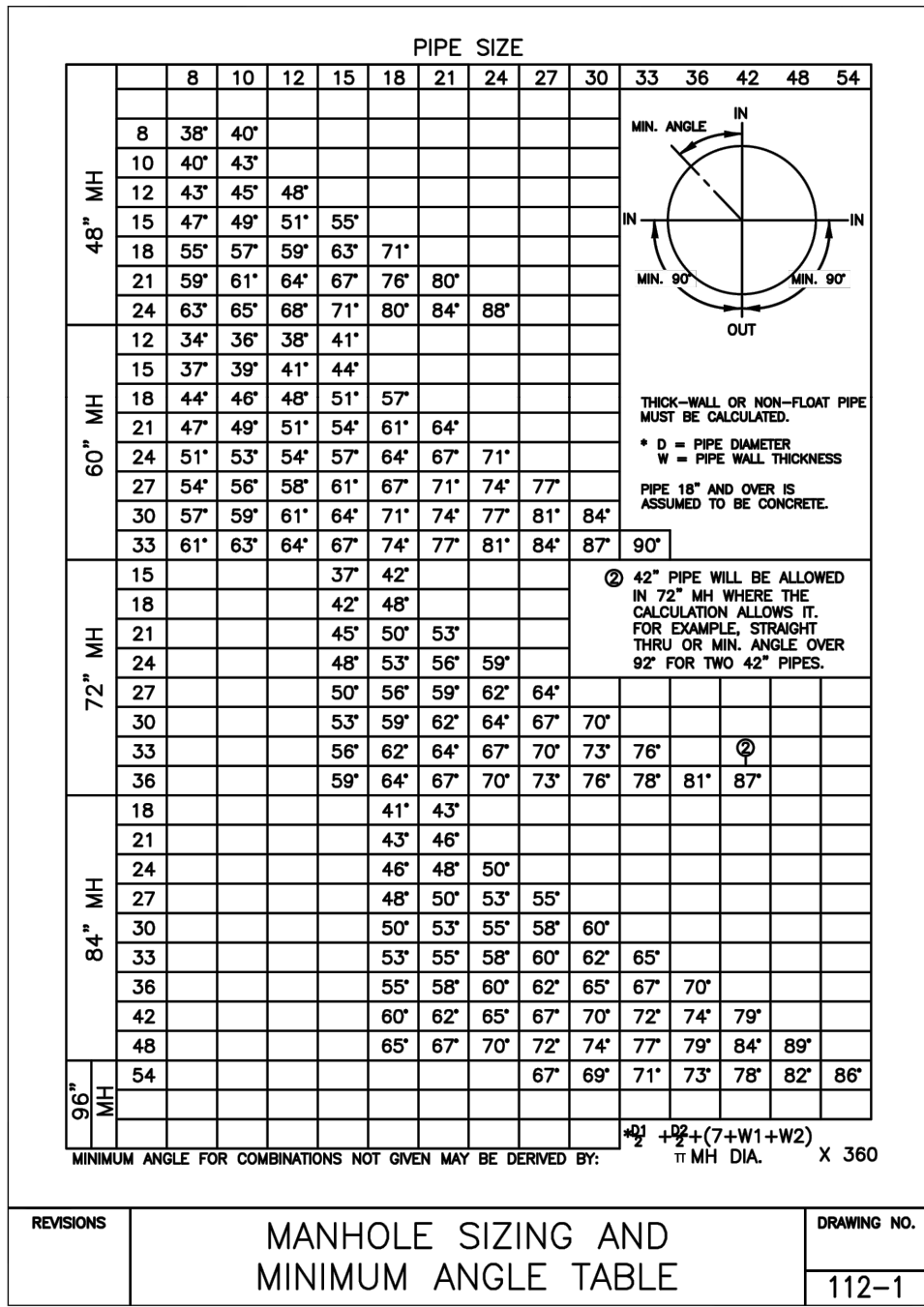
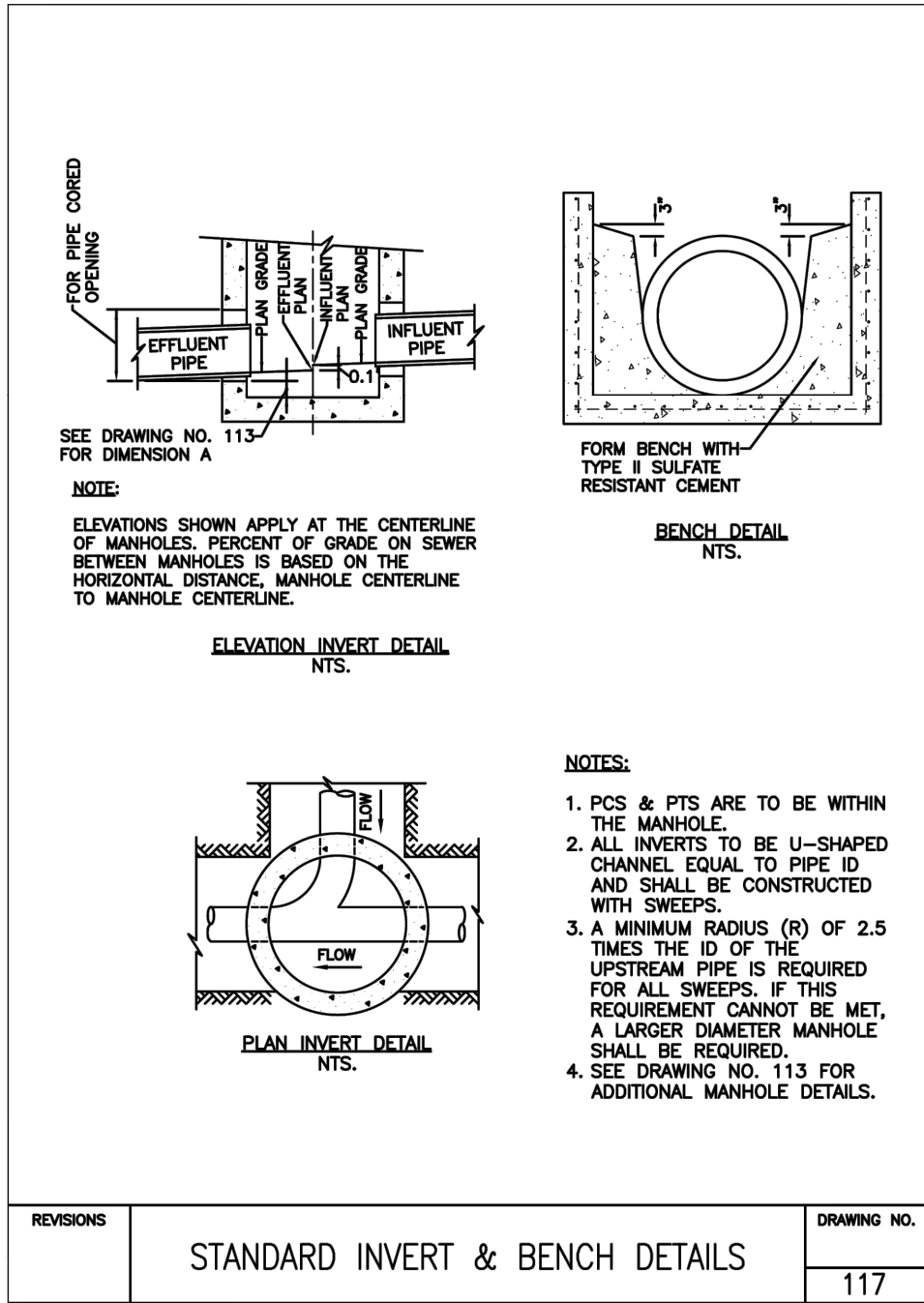
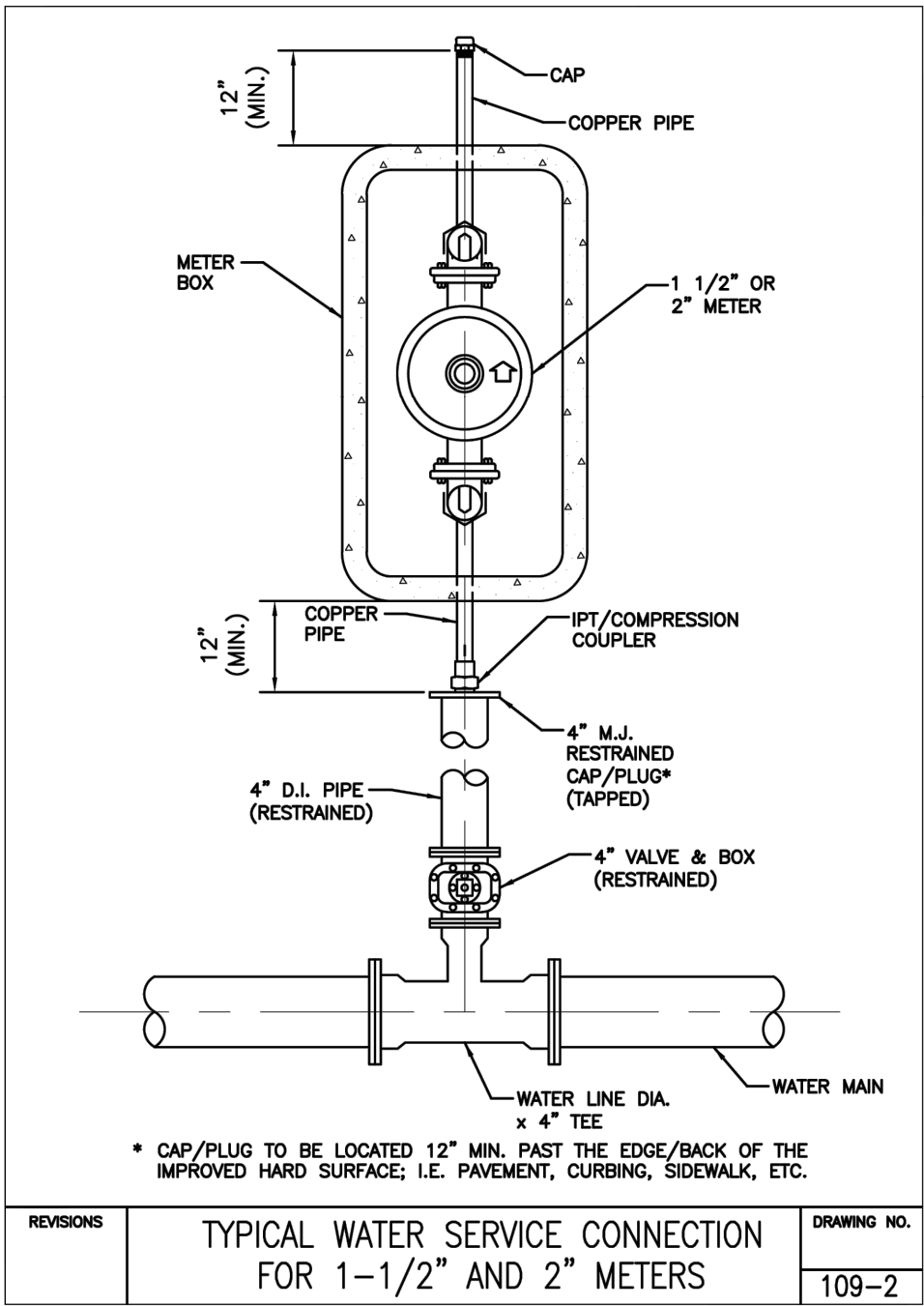
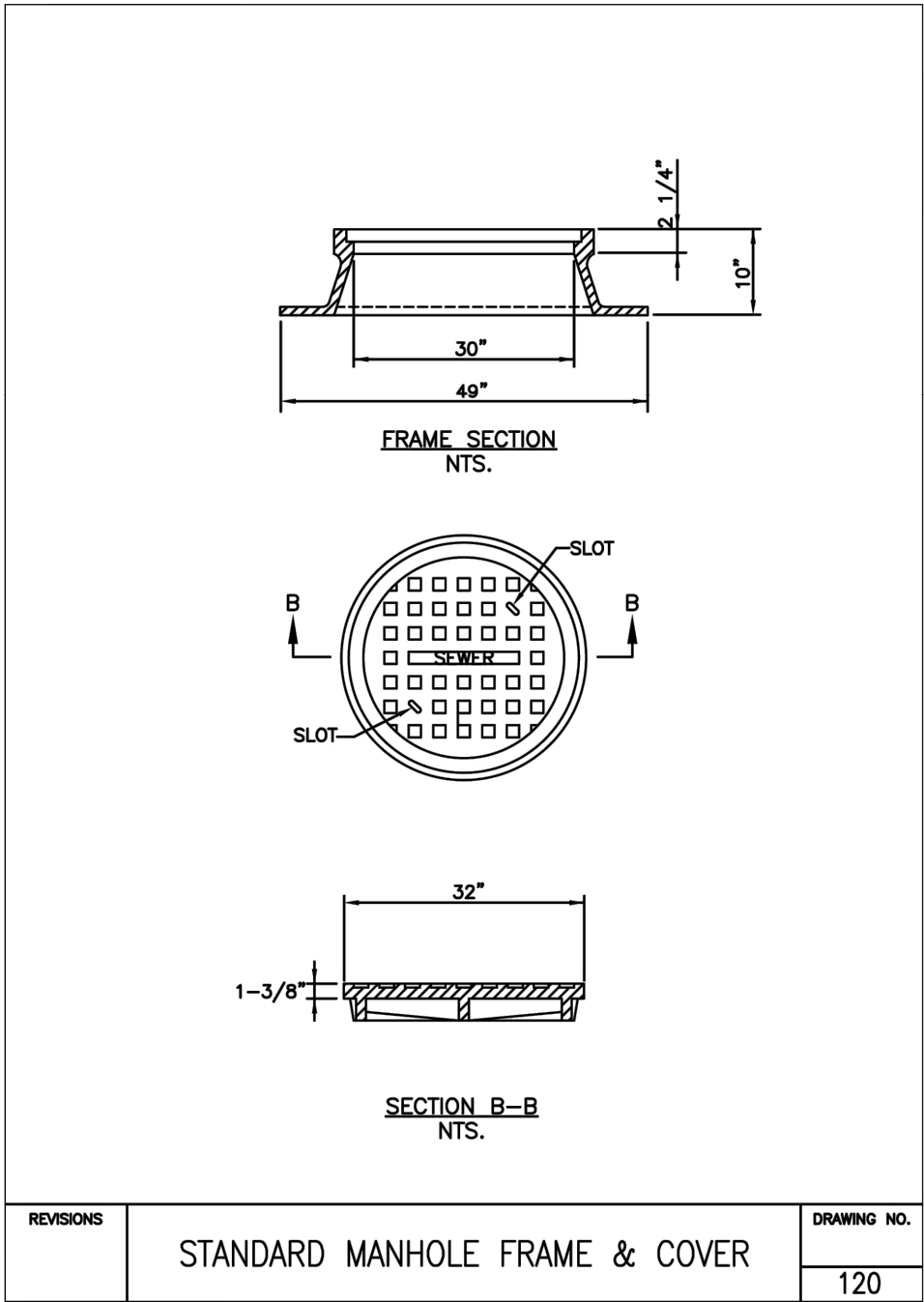
MATERIAL FOR 1 1/2" DISC METER WITH 1-1/2" INLET AND 1-1/2" OUTLET

| QTY. | DESCRIPTION                                                                                       |
|------|---------------------------------------------------------------------------------------------------|
| 1    | 2" DISC METER W/GASKETS, BOLTS AND NUTS                                                           |
| 1    | 2" FLANGED ANGLE VALVE                                                                            |
| 1    | 2" FLANGED ANGLE VALVE                                                                            |
| 5    | 2" BRASS PIPE (2 PCS. 12" LONG; 1 PC. VARIABLE LENGTH; PIPE TO BE CUT AND THREADED BY CONTRACTOR) |
| 2    | 2" BRASS ELBOWS                                                                                   |
| 1    | 2" BRASS BLIND CAP                                                                                |
| 1    | 2" BY-PASS PIPE AND SHUT-OFF VALVE                                                                |

MATERIAL FOR 2" DISC METER WITH 2" INLET AND 2" OUTLET

2 OF 2

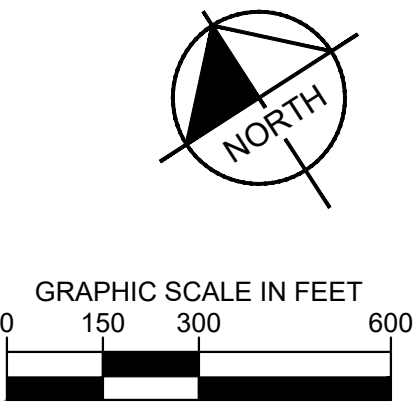








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|                        |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |           |          |             |       |          |             |            |          |     |            |     |
|------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|----------|-------------|-------|----------|-------------|------------|----------|-----|------------|-----|
| PROJECT HERCULES       | OVERALL PLANTING PLAN | <div><br/>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br/>6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br/>PHONE: 804-673-3882<br/>WWW.KIMLEY-HORN.COM</div> <div></div> <table><tr><td>KHA PROJECT</td><td>113706001</td><td>DATE</td><td>11/14/2025</td><td>SCALE</td><td>AS SHOWN</td><td>DESIGNED BY</td><td>STM</td><td>DRAWN BY</td><td>STM</td><td>CHECKED BY</td><td>JMM</td></tr></table> | KHA PROJECT | 113706001 | DATE     | 11/14/2025  | SCALE | AS SHOWN | DESIGNED BY | STM        | DRAWN BY | STM | CHECKED BY | JMM |
| KHA PROJECT            | 113706001             | DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 11/14/2025  | SCALE     | AS SHOWN | DESIGNED BY | STM   | DRAWN BY | STM         | CHECKED BY | JMM      |     |            |     |
| SHEET NUMBER<br>CP-100 | APPOMATTOX COUNTY     | VA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |           |          |             |       |          |             |            |          |     |            |     |



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INSET A



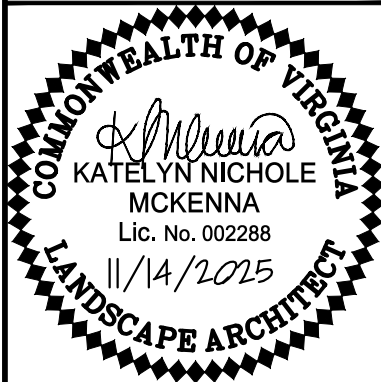
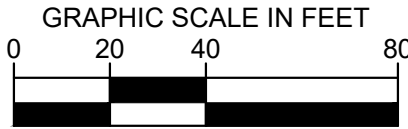
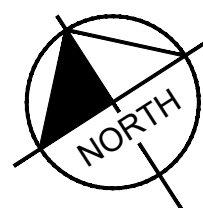
INSET B

## PLANT KEY

**BUFFER PLANTING**  
20' WIDTH EXTENDING THE LENGTH OF THE DEVELOPMENT AREA, EVERGREEN TREES (4' HT MIN AT PLANTING) IN ROWS OF 15' APART AND STAGGERED 10' O.C.; REFER TO DETAIL 2, CP-502.  
Ilex opaca / American Holly  
Ilex x 'Nellie R. Stevens' / Nellie R. Stevens Holly  
Magnolia grandiflora 'Little Gem' / Little Gem Dwarf Southern Magnolia  
Pinus taeda / Loblolly Pine  
Pinus virginiana / Virginia Pine

NOTE: AREAS OF TEMPORARY WORKSPACE WHERE NO SWM MEASURES ARE PROPOSED MUST BE RESTORED IN-KIND PER RESTORATION SEQUENCE ON SHEET CE-501. TREE AND BUFFER PRESERVATION AREAS ARE APPROXIMATE. BUFFER PLANTINGS SHOWN ARE CONCEPTUAL, AND SUBJECT TO CHANGE BASED ON FIELD REVIEW BY THE APPOMATTOX COUNTY ZONING ADMINISTRATOR. BUFFER PLANTINGS SHALL ENSURE A MINIMUM OF 20' OF VEGETATION AROUND THE PERIMETER OF THE PROPERTY. REVISED BUFFER ZONES WILL ADDRESS AREAS LACKING SUFFICIENT TREE COVERAGE AND WILL BE FIELD-ADJUSTED AS NECESSARY. FINAL APPROVAL OF SCREENING WILL BE PROVIDED BY THE ZONING ADMINSTRATOR AT THE CONCLUSION OF CONSTRUCTION.

- GENERAL NOTES:**
- EXISTING TREES AND SHRUBS INDICATED TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY INSTALLING TREE PROTECTIVE FENCING PER THE PROJECT PLANS AND SPECIFICATIONS.
  - SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.
  - THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF ANY PLANTING (I.E. SHRUBS, ETC.) DAMAGED OR REMOVED BY DPU, OR ITS AGENT, AS REQUIRED FOR MAINTENANCE OF COUNTY OWNED WATER AND/OR SEWER FACILITIES.
  - NO DISTURBANCE OR WORK IS PERMITTED OUTSIDE OF LIMITS OF DISTURBANCE OTHER THAN DIGGING HOLES FOR TREE ROOT BALLS.



|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

## PLANTING PLAN

## PROJECT HERCULES

SHEET NUMBER  
CP-101

APPOMATTOX COUNTY

VA

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**Jacobs**



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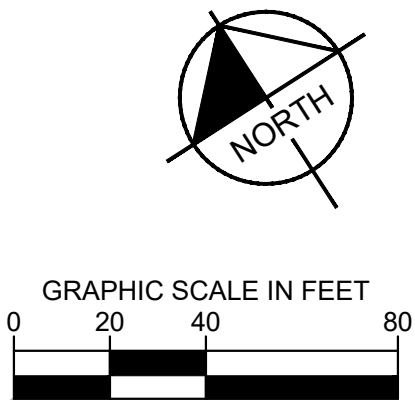
INSET C

PLANT KEY

**BUFFER PLANTING**  
20' WIDTH EXTENDING THE LENGTH OF THE DEVELOPMENT AREA, EVERGREEN TREES (4' HT MIN AT PLANTING) IN ROWS OF 15' APART AND STAGGERED 10' O.C.; REFER TO DETAIL 2, CP-502.  
Ilex opaca / American Holly  
Ilex x 'Nellie R. Stevens' / Nellie R. Stevens Holly  
Magnolia grandiflora 'Little Gem' / Little Gem Dwarf Southern Magnolia  
Pinus taeda / Loblolly Pine  
Pinus virginiana / Virginia Pine

NOTE: AREAS OF TEMPORARY WORKSPACE WHERE NO SWM MEASURES ARE PROPOSED MUST BE RESTORED IN-KIND PER RESTORATION SEQUENCE ON SHEET CE-501. TREE AND BUFFER PRESERVATION AREAS ARE APPROXIMATE. BUFFER PLANTINGS SHOWN ARE CONCEPTUAL, AND SUBJECT TO CHANGE BASED ON FIELD REVIEW BY THE APPOMATTOX COUNTY ZONING ADMINISTRATOR. BUFFER PLANTINGS SHALL ENSURE A MINIMUM OF 20' OF VEGETATION AROUND THE PERIMETER OF THE PROPERTY. REVISED BUFFER ZONES WILL ADDRESS AREAS LACKING SUFFICIENT TREE COVERAGE AND WILL BE FIELD-ADJUSTED AS NECESSARY. FINAL APPROVAL OF SCREENING WILL BE PROVIDED BY THE ZONING ADMINSTRATOR AT THE CONCLUSION OF CONSTRUCTION.

- GENERAL NOTES:**
- EXISTING TREES AND SHRUBS INDICATED TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY INSTALLING TREE PROTECTIVE FENCING PER THE PROJECT PLANS AND SPECIFICATIONS.
  - SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.
  - THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF ANY PLANTING (I.E. SHRUBS, ETC.) DAMAGED OR REMOVED BY DPU, OR ITS AGENT, AS REQUIRED FOR MAINTENANCE OF COUNTY OWNED WATER AND/OR SEWER FACILITIES.
  - NO DISTURBANCE OR WORK IS PERMITTED OUTSIDE OF LIMITS OF DISTURBANCE OTHER THAN DIGGING HOLES FOR TREE ROOT BALLS.



|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

PROJECT HERCULES

PLANTING PLAN

APPOMATTOX COUNTY

VA

SHEET NUMBER

CP-102



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CP-103 PLANTING PLAN November 05, 2025 04:54:46pm  
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INSET D

## PLANT KEY

**BUFFER PLANTING**  
20' WIDTH EXTENDING THE LENGTH OF THE DEVELOPMENT AREA, EVERGREEN TREES (4' HT MIN AT PLANTING) IN ROWS OF 15' APART AND STAGGERED 10' O.C.; REFER TO DETAIL 2, CP-502.  
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- GENERAL NOTES:**
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  - SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.
  - THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF ANY PLANTING (I.E. SHRUBS, ETC.) DAMAGED OR REMOVED BY DPU, OR ITS AGENT, AS REQUIRED FOR MAINTENANCE OF COUNTY OWNED WATER AND/OR SEWER FACILITIES.
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|             |           |      |            |       |          |             |     |          |     |            |     |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|
| KHA PROJECT | 113706001 | DATE | 11/14/2025 | SCALE | AS SHOWN | DESIGNED BY | STM | DRAWN BY | STM | CHECKED BY | JMM |
|-------------|-----------|------|------------|-------|----------|-------------|-----|----------|-----|------------|-----|

## PLANTING PLAN

## PROJECT HERCULES

APPOMATTOX COUNTY VA

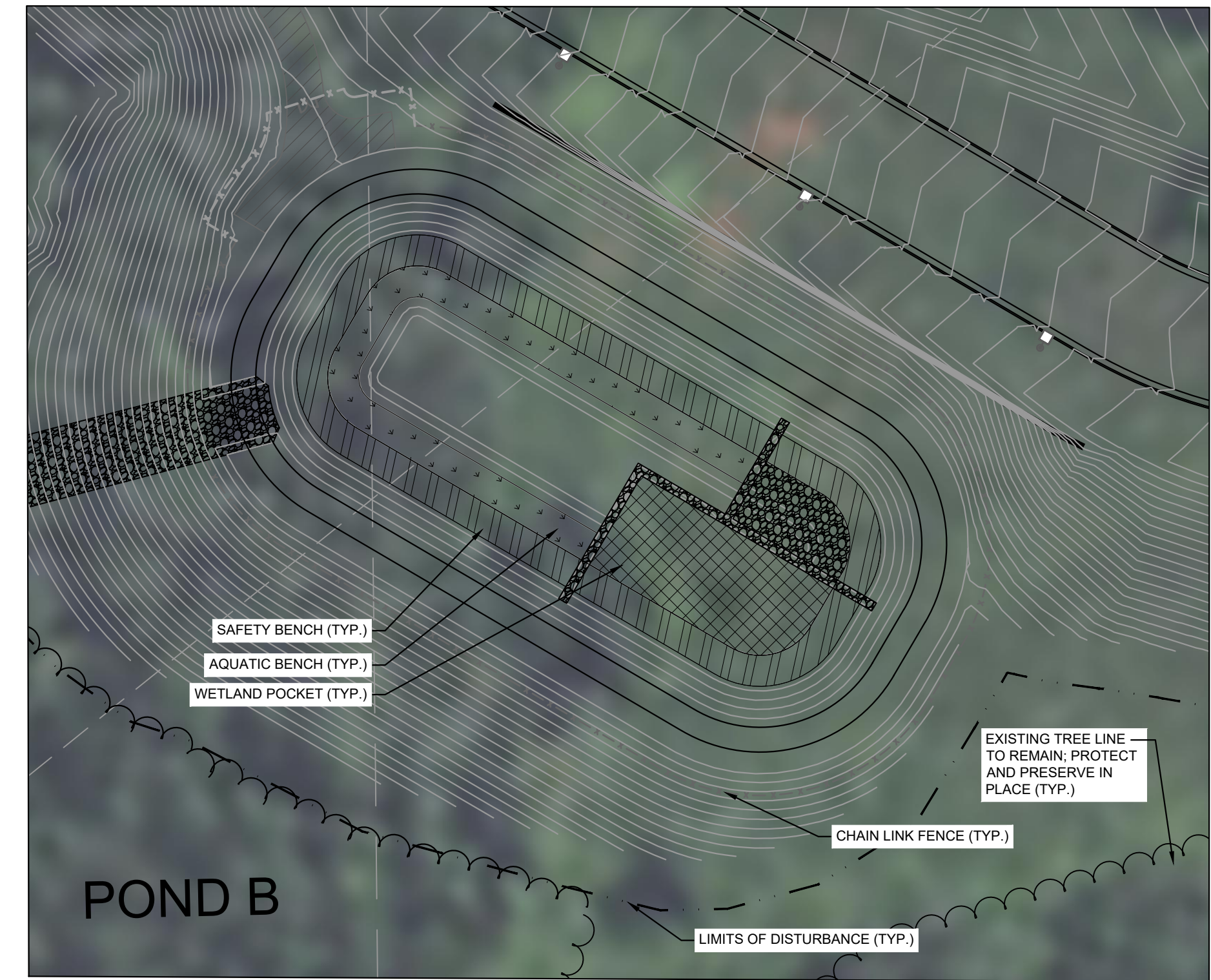
SHEET NUMBER  
CP-103

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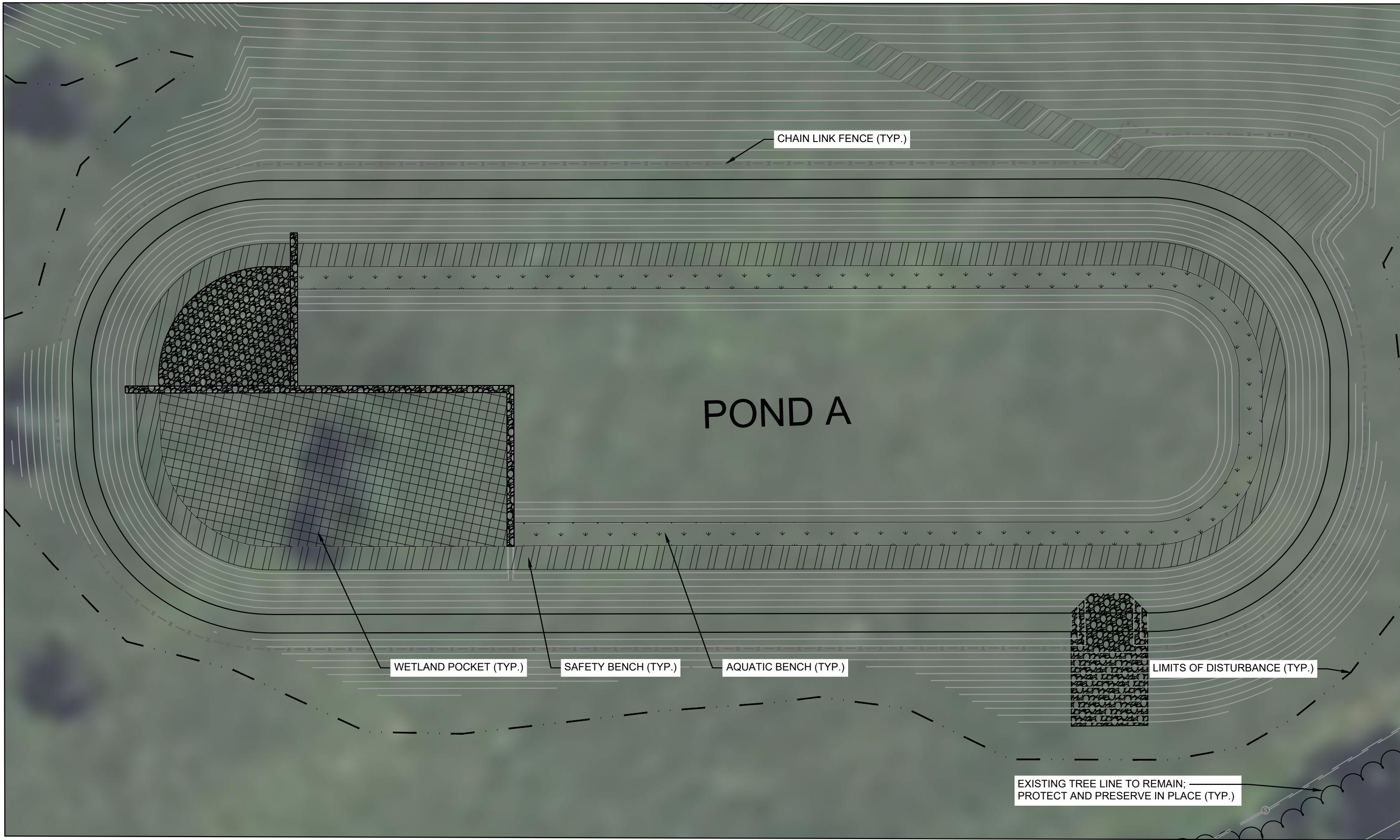
**Jacobs**



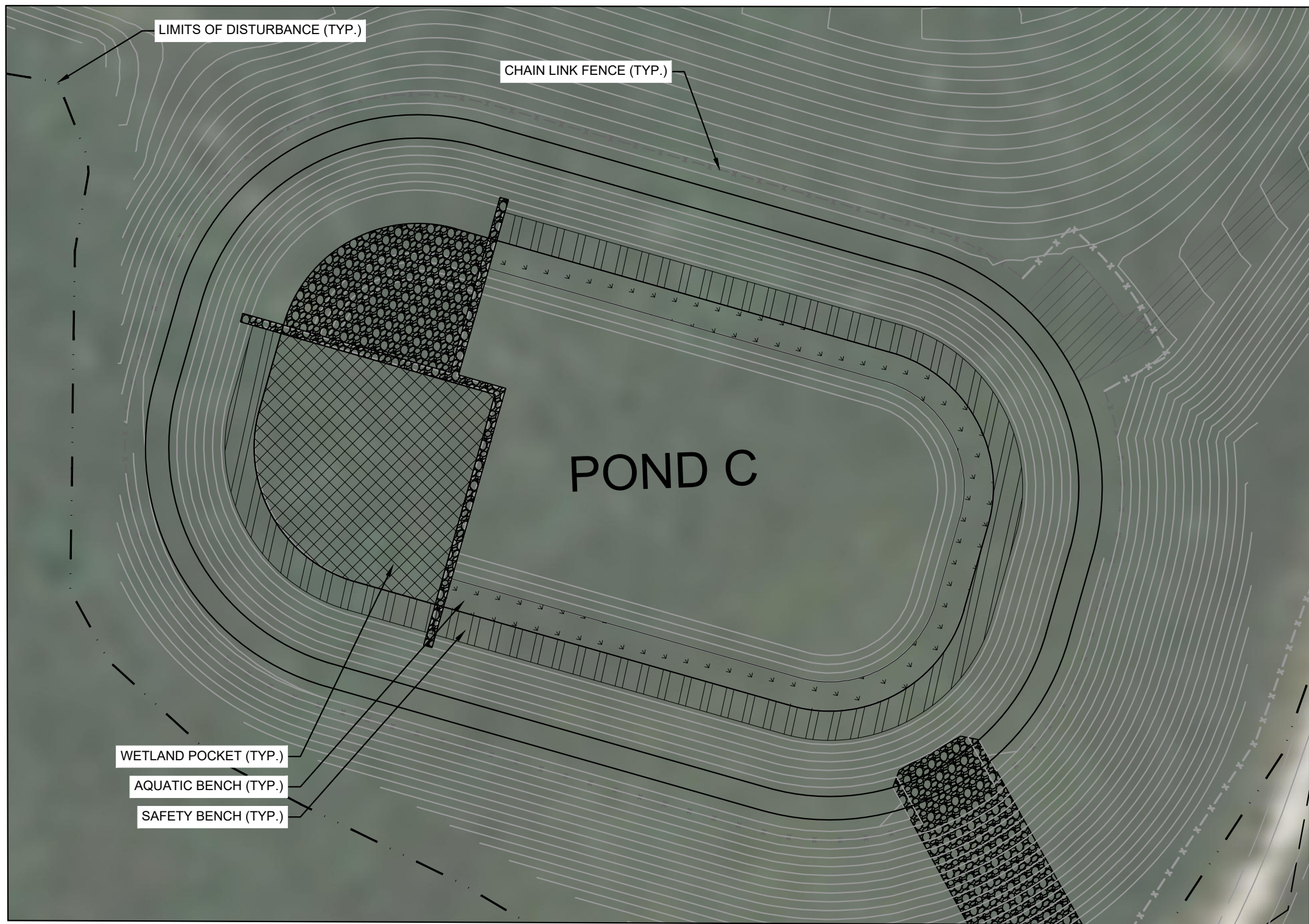
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INSET F

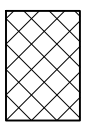
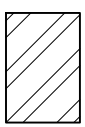
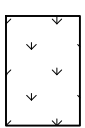


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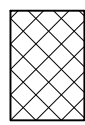
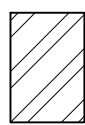
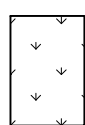


INSET G

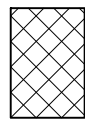
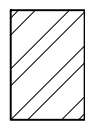
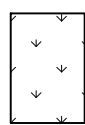
#### POND A PLANT SCHEDULE

|                                                                                     |                |           |
|-------------------------------------------------------------------------------------|----------------|-----------|
|  | WETLAND POCKET | 9,421 sf  |
|  | SAFETY BENCH   | 11,426 sf |
|  | AQUATIC BENCH  | 7,975 sf  |

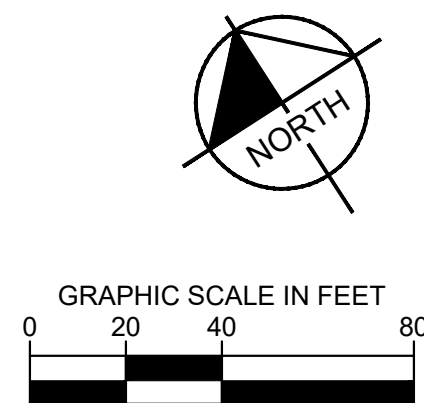
#### POND B PLANT SCHEDULE

|                                                                                     |                |          |
|-------------------------------------------------------------------------------------|----------------|----------|
|  | WETLAND POCKET | 2,301 sf |
|  | SAFETY BENCH   | 4,696 sf |
|  | AQUATIC BENCH  | 2,642 sf |

#### POND C PLANT SCHEDULE

|                                                                                     |                |          |
|-------------------------------------------------------------------------------------|----------------|----------|
|  | WETLAND POCKET | 5,200 sf |
|  | SAFETY BENCH   | 6,013 sf |
|  | AQUATIC BENCH  | 4,287 sf |

- GENERAL NOTES:
- SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.
  - SEE SHEET CP-502 FOR PLANTING SPECIFICATIONS, QUANTITIES, AND DETAILS OF POND PLANTINGS.
  - THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF ANY PLANTING (I.E. SHRUBS, ETC.) DAMAGED OR REMOVED BY DPU, OR ITS AGENT, AS REQUIRED FOR MAINTENANCE OF COUNTY OWNED WATER AND/OR SEWER FACILITIES.



PROJECT HERCULES

CP-104

APPOMATTOX COUNTY

VA

PLANTING PLAN

KHA PROJECT

113706001

DATE

11/14/2025

SCALE

AS SHOWN

DESIGNED BY

STM

DRAWN BY

STM

CHECKED BY

JMM

COMMONWEALTH OF VIRGINIA

KATELYN NICHOLE MCKENNA

Lic. No. 002288

11/14/2025

LANDSCAPE ARCHITECT

Kimley»Horn

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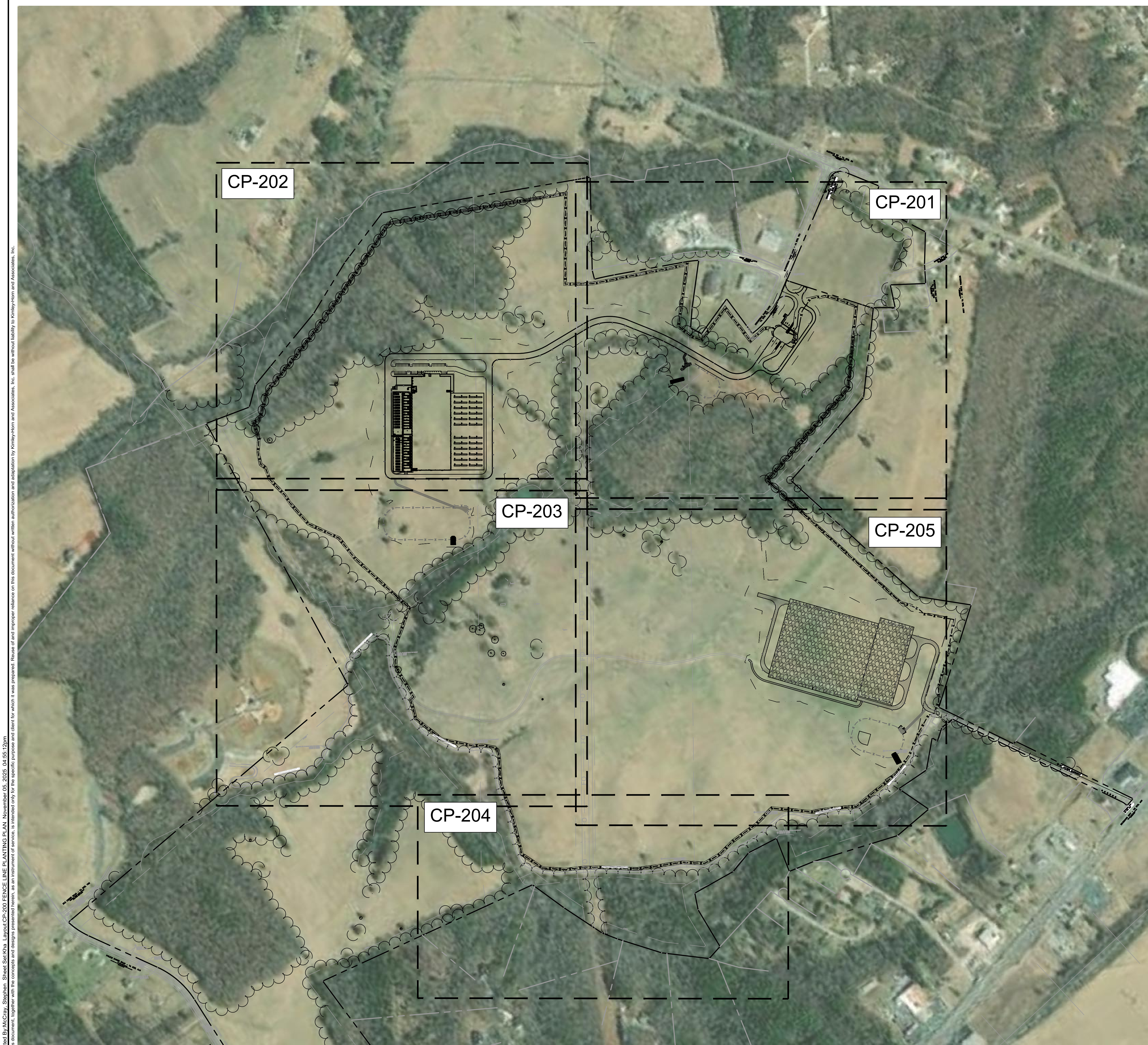
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PHONE: 804-673-3882

WWW.KIMLEY-HORN.COM

Jacobs





FENCELINE PLANTING LEGEND

- CONVERT TO BRUSH
- MANAGED TURF (TEMPORARY WORKSPACE)
- (SEE RESTORATION SEQUENCE ON SHEET CE-501 FOR TEMPORARY WORKSPACE)

NOTE: AREAS OF TEMPORARY WORKSPACE WHERE NO SWM MEASURES ARE PROPOSED MUST BE RESTORED IN-KIND PER RESTORATION SEQUENCE ON SHEET CE-501.

PROJECT HERCULES

APPOMATTOX COUNTY

VA

FENCE LINE PLANTING PLAN

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY  
STM

DRAWN BY  
STM

CHECKED BY  
JMM

COMMONWEALTH OF VIRGINIA

KATELYN NICHOLE MCKENNA

Lic. No. 002288

11/14/2025

LANDSCAPE ARCHITECT

Kimley»Horn

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PHONE: 804-673-3882  
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Jacobs





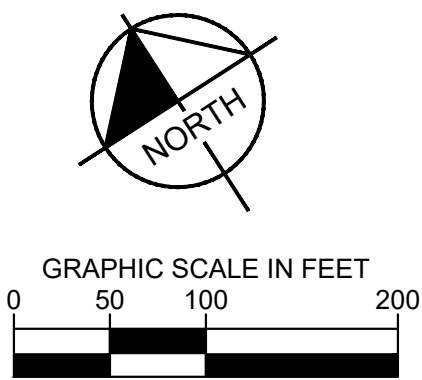
FENCELINE PLANTING LEGEND

- CONVERT TO BRUSH
  - MANAGED TURF (TEMPORARY WORKSPACE)
- (SEE RESTORATION SEQUENCE ON SHEET CE-501 FOR TEMPORARY WORKSPACE)

NOTE: AREAS OF TEMPORARY WORKSPACE WHERE NO SWM MEASURES ARE PROPOSED MUST BE RESTORED IN-KIND PER RESTORATION SEQUENCE ON SHEET CE-501.

GENERAL NOTES:

- EXISTING TREES AND SHRUBS INDICATED TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY INSTALLING TREE PROTECTIVE FENCING PER THE PROJECT PLANS AND SPECIFICATIONS.
- SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.
- THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF ANY PLANTING (I.E. SHRUBS, ETC.) DAMAGED OR REMOVED BY DPU, OR ITS AGENT, AS REQUIRED FOR MAINTENANCE OF COUNTY OWNED WATER AND/OR SEWER FACILITIES.
- NO DISTURBANCE OR WORK IS PERMITTED OUTSIDE OF LIMITS OF DISTURBANCE OTHER THAN DIGGING HOLES FOR TREE ROOT BALLS.



PROJECT HERCULES

APPOMATTOX COUNTY

SHEET NUMBER  
CP-201

FENCE LINE  
PLANTING PLAN

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY  
STM

DRAWN BY  
STM

CHECKED BY  
JMM

COMMONWEALTH OF VIRGINIA

KATELYN NICHOLE  
MCKENNA  
Lic. No. 002288  
11/14/2025

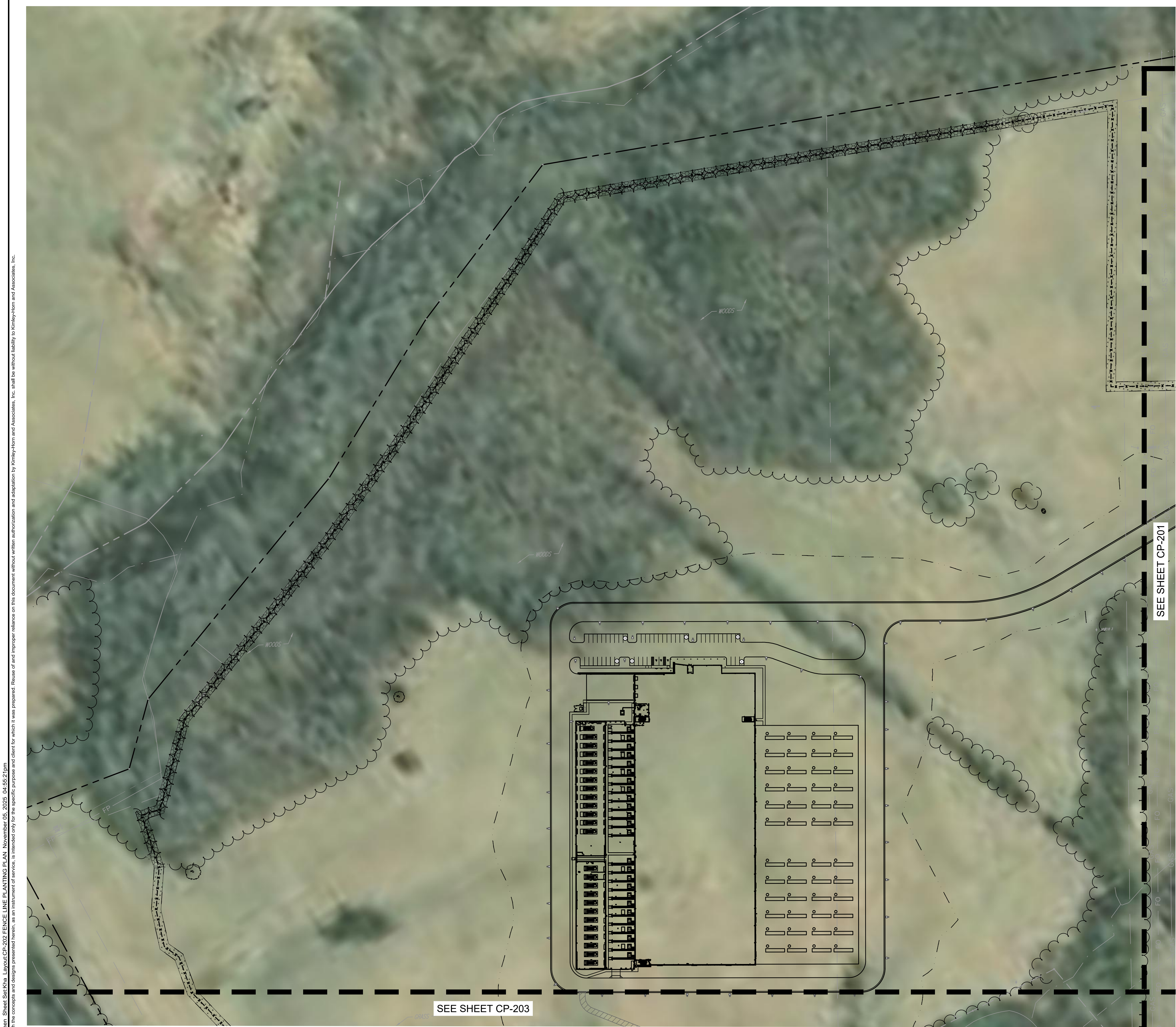
LANDSCAPE ARCHITECT

Kimley»Horn

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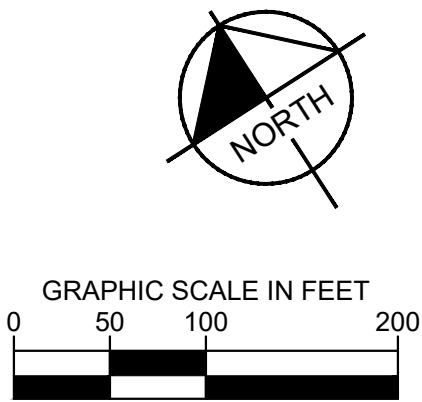
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PROJECT HERCULES

SHEET NUMBER  
CP-202

APPOMATTOX COUNTY

VA

FENCE LINE  
PLANTING PLAN

KHA PROJECT  
113706001

DATE  
11/14/2025

SCALE AS SHOWN

DESIGNED BY  
STM

DRAWN BY  
STM

CHECKED BY  
JMM



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FENCELINE PLANTING LEGEND

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|             |            |
|-------------|------------|
| KHA PROJECT | 113706001  |
| DATE        | 11/14/2025 |
| SCALE       | AS SHOWN   |
| DESIGNED BY | STM        |
| DRAWN BY    | STM        |
| CHECKED BY  | JMM        |

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COMMONWEALTH OF VIRGINIA

KATELYN NICHOLE MCKENNA  
Lic. No. 002288  
11/14/2025  
LANDSCAPE ARCHITECT

FENCE LINE  
PLANTING PLAN

PROJECT HERCULES

VA

APPOMATTOX COUNTY

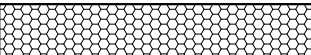
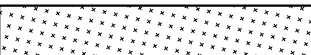
SHEET NUMBER  
CP-203



Plotted By: McCray, Stephen    Sheet Set: KHA    Layout: CP-204 FENCE LINE PLANTING PLAN    November 05, 2025    04:55:31pm  
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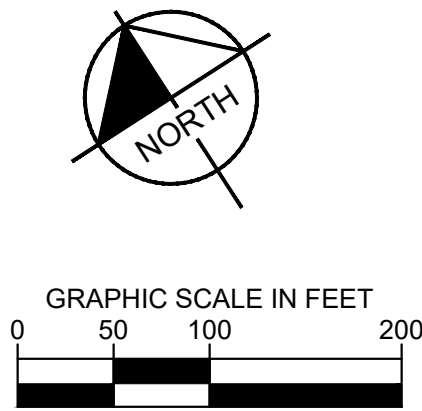
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1. Plants shall be healthy, vigorous material, free of pests and diseases and are subject to approval/rejection of the Landscape Architect prior to, during and after installation.
2. Contractor shall identify all materials at growing location prior to purchase and submit digital photographs, and source list to the Landscape Architect for approval at a minimum of six (6) calendar weeks prior to installation. Plants not approved shall be resourced and resubmitted.
3. Planting beds and individual tree plantings shall be mulched continuously as specified.
4. Contractor shall be responsible for the removal of local underground utilities and excavation work in a manner that avoids damage to utilities during the course of work. Contractor shall be responsible or remedy of any damage to utilities, structures, site appearances that occur as a result of landscape related work.
5. Contractor is responsible for verifying quantities shown on documents. Field adjustments shall be approved by Landscape Architect prior to installation. Quantities indicated on drawings are for reference-it is the Contractor's responsibility to ensure full coverage of plants at the indicated spacing.
6. Contractor is responsible for maintenance of all plantings including, but not limited to watering, mowing, edging, spraying, mulching, fertilizing, of plantings and turf areas for one (1) calendar year from date of certificate of occupancy. Contractor is responsible for warranty of all plant material for a period of one (1) calendar year from date of certificate of occupancy. Warranty replacement planting shall meet or exceed the original specifications identified on drawings. Replacement planting shall extend the same warranty as originally installed materials. Plantings and grass areas shall be flourishing and fully thriving at end of warranty period.
7. Plants identified for replacement by Owner, Landscape Architect shall be replaced immediately by the Contractor unless otherwise agreed upon. Plantings (trees, shrubs, groundcover) subject to replacement by warranty shall exhibit characteristics of 30% dead-per individual plant, non-contributing or disease compromised. Grass areas suitable for acceptance shall demonstrate 85% sustained/consistent and continuous, densely established coverage.
8. Contractor shall perform a site review at end of warranty period and provide the Owner with written documentation of the site, including plant health, warranty replacement items, and conditions that may be influencing plant health. Contractor shall remove from plants and site, all staking and guying material at end of warranty period.
9. Contractor shall comply with all local, state and federal requirements, codes and regulations related to the work undertaken.
10. All material including planting operation appearances shall be of domestic origin manufacture and sourced within 100 miles of the project site.
11. Contractor is responsible for coordination among trades operating on site. Coordination and if necessary resulting modifications to schedules are responsibility of the Contractor.

# I. PLANTS

## A. General

1. Live healthy plants free of dead branches and parts
2. Free of disease, insect, injury and damage
3. Unbroken, intact, dense and solid rootballs and containers, without cracks, flat sides or previously repaired damage.
4. Free of girdling roots or rootboud/circling container conditions
5. Plants of consistent in growth habit and healthy character
6. Free of compromising growth conditions such as weak root connections, crossed branches, snags and scars

Point of origin growing location within 100 miles of project site

4. Graded, standards, caliper, sizes and stock consistent with ANSI Z60.1, American Standard for Nursery Stock most current edition
9. Species identified consistent with Hortus Third: Concise Dictionary of Plants Cultivated in the United States and Canada, most current edition and Manual of Woody Plants: Their Identification, Ornament Characteristics, Culture, Propagation and Uses, most current edition
10. All disturbed areas shall be grass seed unless otherwise identified on landscape plans

1. Deciduous Single Trunk
  - a. Full, straight and upright with consistent symmetrical natural branching pattern throughout
  - b. Branching Height-seven (7) feet to lowest branch in two years unless otherwise required by local jurisdiction
2. Deciduous Multi-Trunk
  - a. Full and upright with straight consistent symmetrical natural branching pattern throughout
  - b. Canes evenly spaced and of similar growth habit
  - c. Free of suckers and extraneous branching
3. Evergreen Single-Trunk
  - a. Full and upright with continuous symmetrical dense natural habit
  - b. Clear branching height twelve (12) inches above top of rootball
  - c. Free of suckers and extraneous branching
  - d. Do not shear or otherwise prune to shape plantings

1. Full, dense and naturally symmetrical.
2. Consistent with container and/or balled and burlapped size
3. Free of suckers and extraneous branching
4. Do not shear or otherwise prune or shape plantings

1. Full and dense in pots or flats

1. Full and dense in pots or flats

1. **Subgrade**
  - a. Soil Mix-10% Compost, 90% topsoil by volume
  - b. Preparation-loosen subgrade to a minimum depth of four (4) inches. Remove all non-natural materials including litter, stones, sticks and all items greater than ¾ inch in any dimension
  - c. Preparation-spread soil mix at a depth of four (4) inches continuously to meet grade elevations shown on drawings. Allow for thickness of sod when applicable

- a. Install not longer than twenty-four (24) hours from harvest
- b. Grass bed not less than two (2) inches in continuous thickness
- c. 100% continuous live sod coverage after first growing season and at end of warranty period.
- d. Of uniform non-varying density and continuous texture quality capable of growth and development immediately upon installation. Weed and noxious plant free
- e. Stagger installation rows and place aligned parallel to contours
- f. Fill joints solidly with planting bed preparation soil
- g. Provide anchor pins at twenty-four (24) inches on center for slopes greater than 4:1

- a. Mix approved by the Landscape Architect
- b. Provide first and new of year seed crops in mix free of weed seeds and deleterious matter
- c. Provide seed mix not greater than 15% annual or perennial rye
- d. Coverage 85% continuous coverage live stand after first growing season and at end of warranty
- e. Replacement or overseeding mixes consistent with original application/installation
- f. Provide erosion blankets or other slope retention methods as noted on drawings

**A. Testing**

1. Materials testing information/certificates/dated labels shall be current to the project and performed/certified not greater than 120 calendar previous days from current date of submittal for review

1. Neutral Ph balance 5.5 -7.5. Friable and containing 2.0-5.0% organic matter by dry weight. Continuously free of non-soil items such as stones, debris, sticks, trash, and deleterious matter greater than ¼ inch in any direction. Clay content shall not exceed 25%.Gravel content shall not exceed 10%. Silt shall not exceed 25%

testing and additive program that demonstrates consistent performance and characteristics and composition as identified herein. Owner shall approve soil testing and soil amendment/additive methods and procedures

1. 100% organic shredded first year hardwood free of deleterious matter, rock, gravel and weed seed.  
Neutral Ph balance 5.5-7.5

- F. Compost Ph**
1. Balanced 5.0-8.5 mature, stable and weed free produced by natural aerobic decomposition. Free of visible contaminants and toxic substances. Not greater than 5% sand, silt, clay or rock by dry weight. Consistent with US-EPA CFR Title 40 Part 503 Standards for Class A biosolids

1. Prior to delivery on-site, the following items are required for approval by Owner: Feedstock percentage in final compost product; statement that the products meets federal, state and local health safety requirements
2. Provide copy of lab analysis less than 120 calendar days old verifying that the product meets described physical requirements; chemical contaminants; Ph; physical contaminants; biological contaminants (including a statement that fecal coliform and salmonella testing and results comply with requirements of the US Composting Council Seal of Testing approval programs

1. 85% topsoil and 15% Compost

1. Granular 10% nitrogen, 6% Phosphorous, 4% Potassium granular form with 50% Nitrogen in organic form. Product and Material Safety Data as approved by Owner

1. Product and Material Safety Data as approved by Owner

1. Potable only unless otherwise approved by Owner

1. 2 x 2 x 48 inch square of sound hardwood, painted flat black on all sides

1. Villa Non-Abrasive Rubber Tree Ties or approved equal

1. Mirafi 140-N or approved equal

1. 1/8-inch x 4-inch in full sections. Ryerson, Timec or approved equal with integral stakes. No open corners. Corners shall be formed and trued to compliant angle or welded closed

1. Locally sourced, river rounded, unfaceted river stone/cobbles.
2. Size shall not exceed 3 total inches in any dimension.
3. Color and texture approved by Owner
4. When placed in concrete or mortar setting bed, tamp to secure and brush clear joints.
5. Concrete or mortar as approved by owner.

### **A. Site Conditions**

1. Inspect site and notify Owner in writing of acceptance with indication that project conditions are acceptable or suitable to proceed with work. Notify Owner of any existing damage and/or other conflicting conditions.
2. Do not proceed with work until unsatisfactory conditions have been satisfactorily remedied. Notify Owner of acceptance prior to commencement of work.
3. Notify Owner in writing of any conditions that may preclude successful completion of work including items such as coordination with other trades, incomplete work, drainage, soil temperature and/or composition access to storage/work areas, damage to conditions, etc.
4. Notify Owner in writing immediately of any items that may influence work schedule, timing of tasks, materials delivery and/or installation and warranty responsibilities.
5. Coordinate and cooperate with other trades working in and adjacent to work areas. Examine drawings of other trades which show development of the entire project and become familiar with the scope of required work by others.

Recommended seasons are a general guide based on historical climatic data and typical performance of plantings, and which vary dependent on project-specific environmental conditions. Due to construction schedules, recommended planting seasons may/may not coincide with request(s) for certificate of occupancy for projects. Coordination of planting installation and seasons shall be reviewed with Owner on an individual project basis.

1. **Deciduous and Evergreen Trees**
  - a. Do not install/plant the following trees between September 15 and March 15
    1. Oaks (*Quercus* Sp., Such as *Q. rubra*, *Q. alba*, *Q. phellos*, *Q. coccinea*)
    2. Dogwood (*Cornus* Sp.)
    3. Sweetgum (*Liquidambar* Sp.)
    4. All Conifers and Evergreens except White Pine (*Pinus strobus* Sp.)
2. **Deciduous and Evergreen Shrubs**
  - a. Install/plant between March 15 and June 15 and/or September 15 and November 30
3. **Perennials**
  - a. Install/plant between March 15 and June 15 and/or September 15 and November 30
4. **Spring Flowering Bulbs**
  - a. Install/plant between September 15 and December 15
5. **Seasonal Annuals**
  - a. Install/plant in season per approved schedule
6. **Turf Grass**
  - a. Install/plant between March 15 and May 15 and/or September 15 and November 30
  - b. Do not install/plant seed or sod turf grass areas when ambient air temperature is below forty (40) degrees Fahrenheit, or forecast for a twelve (12) hour period after completion of work

1. Position plants to show the most-prominent and well-formed face to most-public view
2. Field locate plants and location/spacing/dimension of planting beds on project site prior to beginning installation
3. Verify location of individual plants and plant beds prior to beginning installation. Do not proceed without Owner approval

1. Pursue work continuously without delay or interruption until completion unless notified otherwise by Owner.

2. Prepare project submittals ahead of commencement of work. Landscape Architect requires a minimum of ten (10) working days from date of receipt for review of submittals and response to Owner and Contractor. Plan accordingly for procurement of materials.

3. Continuously update implementation schedule and notify Owner of progress. Delays related to material availability are not cause for non-completion of scheduled delivery of work.

4. Retain records of work, such as weather or site conditions, for review upon finding. Provide records for remedy of schedule delays. Do not work, place or modify frozen soil.

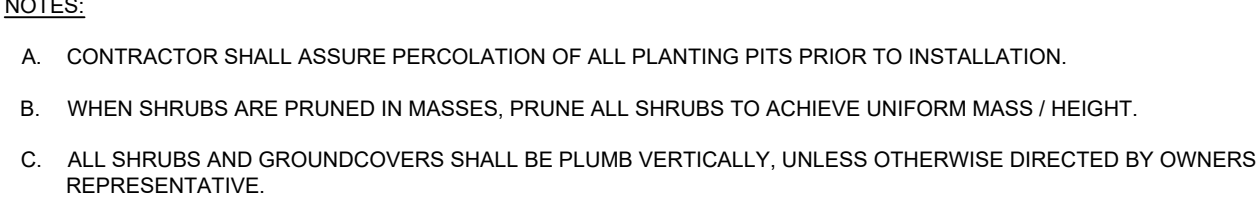
5. Report delays due to extraordinary natural or other conditions beyond control of Contractor.

1. Remove trash, debris and work materials from site prior to request for substantial completion. Thoroughly clean surfaces impacted by work including building, parking areas, roadways, sidewalks, signs, lights, site furnishings, etc.
2. Repair any damage to existing conditions that occurred during execution of work.
3. All clean-up and demobilization procedures shall be performed to satisfaction of the Owner and Landscape Architect.

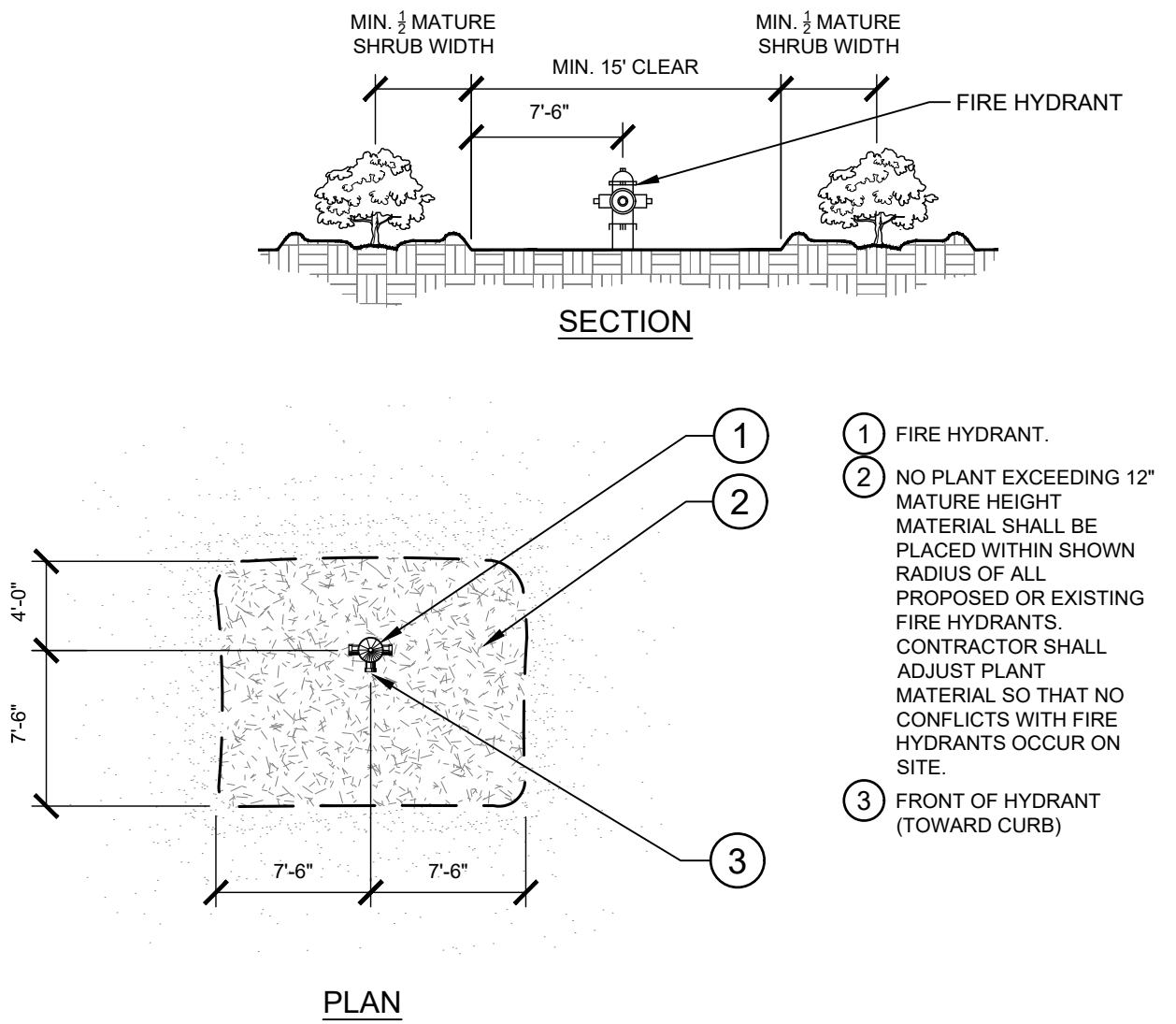
**BUFFER PLANTING**  
20' WIDTH EXTENDING THE LENGTH OF THE DEVELOPMENT AREA, EVERGREEN TREES (4' HT MIN AT PLANTING) IN ROWS OF 15' APART AND STAGGERED 10' O.C.; REFER TO DETAIL 2, CP-502.  
Ilex opaca / American Holly  
Ilex x 'Nellie R. Stevens' / Nellie R. Stevens Holly  
Magnolia grandiflora 'Little Gem' / Little Gem Dwarf Southern Magnolia  
Pinus taeda / Loblolly Pine  
Pinus virginiana / Virginia Pine

- 
- Diagram illustrating the components of a tree in a soil saucer:
- ARBUTIE AT BARK
  - GUY WIRES (3), WHITE FLAG ON EACH 2 STRANDS OF TWISTED GALVANIZED WIRE EACH
  - TURNBUCKLE (3), GALVANIZED
  - SET TREE AT ORIGINAL GRADE OR UP TO 1/8 DEPTH OF ROOT BALL
  - 2" SHREDDED HARDWOOD MULCH
  - SOIL SAUCER: USE PREPARED SOIL, 6" MIN.
  - ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/2 OF BURLAP. NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED
  - PLANTING SOIL MIX PER PLANTING SPECIFICATIONS
  - UNDISTURBED SOIL PEDESTAL
  - 2X WIDTH OF ROOT BALL

## NTS



## NTS



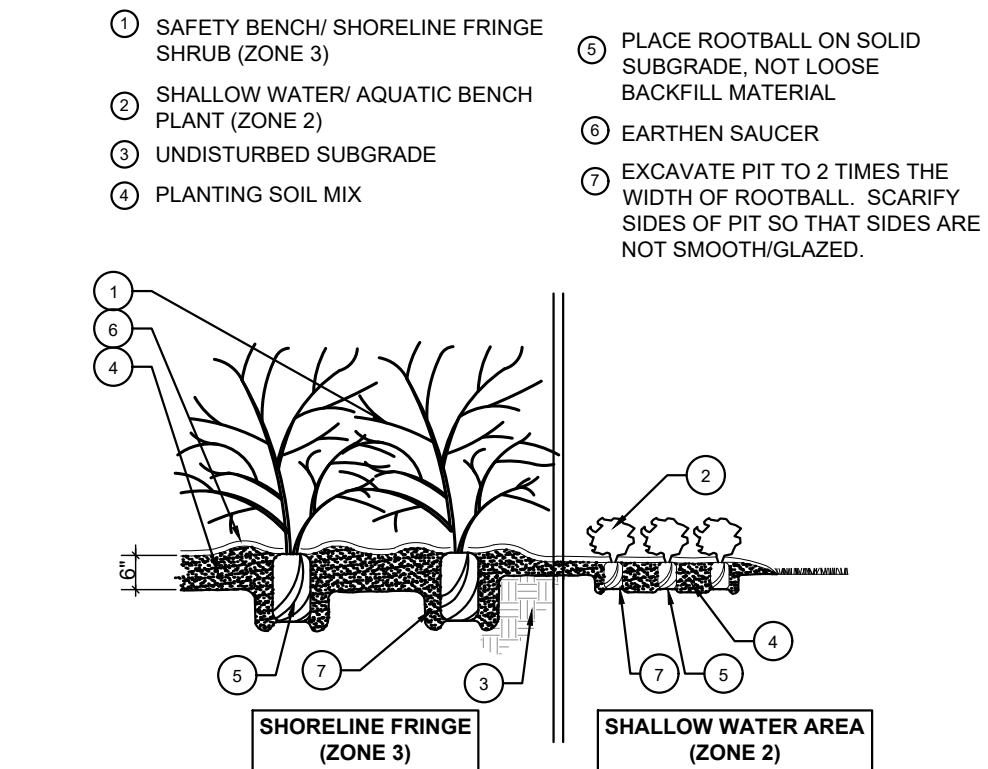
NTS



Plotted By:McGray, Stephen Sheet Set:Kha Layout:CP-502 PLANTING DETAILS & TABULATIONS November 05, 2025 04:55:48pm  
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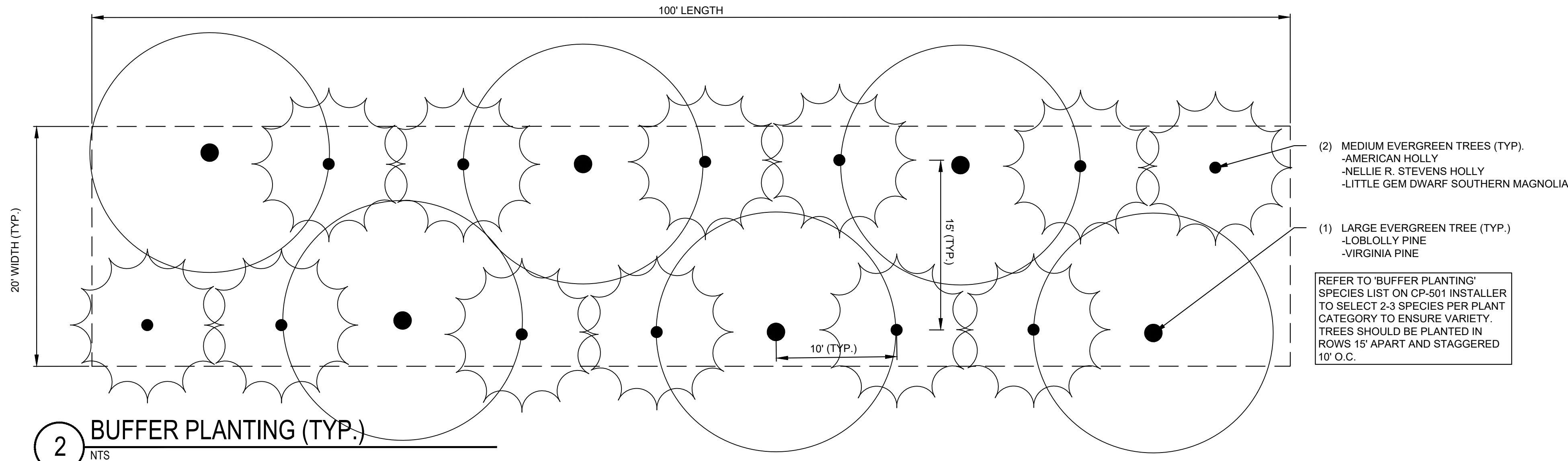
| POND A VEGETATION SCHEDULE |                             |                       |                                  |                    |            |               |                     |         |           |                |                   |           |
|----------------------------|-----------------------------|-----------------------|----------------------------------|--------------------|------------|---------------|---------------------|---------|-----------|----------------|-------------------|-----------|
| Type: Wet Pond             |                             |                       |                                  |                    | Level: 2   |               | Shallow Water Area: |         |           | 17,406 sf      | Shoreline Fringe: | 11,448 sf |
|                            | Zone                        | Quantity              | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size                | Spacing | Plant     | Area per Plant | Coverage Area     |           |
| AQUATIC BENCH              | Shallow Water Area (Zone 2) | 75                    | <i>Acorus calamus</i>            | Sweetflag          | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 675 sf            |           |
|                            | Shallow Water Area (Zone 2) | 75                    | <i>Iris versicolor</i>           | Blue Flag Iris     | Emergent   | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 675 sf            |           |
|                            | Shallow Water Area (Zone 2) | 85                    | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 765 sf            |           |
|                            | Shallow Water Area (Zone 2) | 75                    | <i>Panicum virgatum</i>          | Switchgrass        | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 675 sf            |           |
|                            | Shallow Water Area (Zone 2) | 87                    | <i>Peltandra virginica</i>       | Arrow Arum         | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 783 sf            |           |
|                            | Shallow Water Area (Zone 2) | 85                    | <i>Juncus tenuis</i>             | Path Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 765 sf            |           |
|                            | Shallow Water Area (Zone 2) | 85                    | <i>Pontederia cordata</i>        | Pickrel Weed       | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 765 sf            |           |
|                            | Shallow Water Area (Zone 2) | 75                    | <i>Sagittaria latifolia</i>      | Arrowhead          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 675 sf            |           |
|                            | Shallow Water Area (Zone 2) | 75                    | <i>Typha latifolia</i>           | Broadleaf Cattail  | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 675 sf            |           |
|                            | Shallow Water Area (Zone 2) | 85                    | <i>Scirpus cyperinus</i>         | Woolgrass          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 765 sf            |           |
|                            | Shallow Water Area (Zone 2) | 85                    | <i>Asclepias incarnata</i>       | Swamp Milkweed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 765 sf            |           |
|                            |                             |                       |                                  |                    |            |               |                     |         |           |                | Total Coverage    | 7,983 sf  |
| WETLAND POCKET             | Shallow Water Area (Zone 2) | 88                    | <i>Acorus calamus</i>            | Sweetflag          | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 792 sf            |           |
|                            | Shallow Water Area (Zone 2) | 98                    | <i>Andropogon virginicus</i>     | Broomsedge         | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 882 sf            |           |
|                            | Shallow Water Area (Zone 2) | 86                    | <i>Iris versicolor</i>           | Blue Flag Iris     | Emergent   | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 774 sf            |           |
|                            | Shallow Water Area (Zone 2) | 85                    | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 765 sf            |           |
|                            | Shallow Water Area (Zone 2) | 80                    | <i>Panicum virgatum</i>          | Switchgrass        | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 720 sf            |           |
|                            | Shallow Water Area (Zone 2) | 86                    | <i>Peltandra virginica</i>       | Arrow Arum         | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 774 sf            |           |
|                            | Shallow Water Area (Zone 2) | 88                    | <i>Juncus tenuis</i>             | Path Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 792 sf            |           |
|                            | Shallow Water Area (Zone 2) | 88                    | <i>Pontederia cordata</i>        | Pickrel Weed       | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 792 sf            |           |
|                            | Shallow Water Area (Zone 2) | 98                    | <i>Sagittaria latifolia</i>      | Arrowhead          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 882 sf            |           |
|                            | Shallow Water Area (Zone 2) | 86                    | <i>Typha latifolia</i>           | Broadleaf Cattail  | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 774 sf            |           |
|                            | Shallow Water Area (Zone 2) | 78                    | <i>Scirpus cyperinus</i>         | Woolgrass          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 702 sf            |           |
|                            | Shallow Water Area (Zone 2) | 86                    | <i>Asclepias incarnata</i>       | Swamp Milkweed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 774 sf            |           |
|                            |                             |                       |                                  |                    |            |               |                     |         |           | Total Coverage | 9,423 sf          |           |
| SAFETY BENCH               | Zone                        | Quantity              | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size                | Spacing | Plant     | Area per Plant | Coverage Area     |           |
|                            | Shoreline Fringe (Zone 3)   | 72                    | <i>Acorus calamus</i>            | Sweetflag          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 648 sf            |           |
|                            | Shoreline Fringe (Zone 3)   | 75                    | <i>Carex pensylvanica</i>        | Pennsylvania Sedge | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 675 sf            |           |
|                            | Shoreline Fringe (Zone 3)   | 82                    | <i>Cephalanthus occidentalis</i> | Buttonbush         | Dec. Shrub | N/A           | 15-18 in.           | 5' o.c. | Cont.     | 36 sf          | 2,952 sf          |           |
|                            | Shoreline Fringe (Zone 3)   | 85                    | <i>Hibiscus moscheutos</i>       | Marsh Hibiscus     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 2' o.c. | Cont.     | 9 sf           | 765 sf            |           |
|                            | Shoreline Fringe (Zone 3)   | 80                    | <i>Pontederia cordata</i>        | Pickrel Weed       | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 720 sf            |           |
|                            | Shoreline Fringe (Zone 3)   | 66                    | <i>Aronia arbutifolia</i>        | Red Chokeberry     | Dec. Shrub | N/A           | 15-18 in.           | 4' o.c. | Cont.     | 36 sf          | 2,376 sf          |           |
|                            | Shoreline Fringe (Zone 3)   | 68                    | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 612 sf            |           |
| Shoreline Fringe (Zone 3)  | 75                          | <i>Viburnum nudum</i> | Possomhaw Viburnum               | Dec. Shrub         | N/A        | 15-18 in.     | 4' o.c.             | Cont.   | 36 sf     | 2,700 sf       |                   |           |
|                            |                             |                       |                                  |                    |            |               |                     |         |           | Total Coverage | 11,448 sf         |           |

| POND B VEGETATION SCHEDULE                                                                     |                             |                       |                                  |                    |            |               |                   |         |           |                |               |
|------------------------------------------------------------------------------------------------|-----------------------------|-----------------------|----------------------------------|--------------------|------------|---------------|-------------------|---------|-----------|----------------|---------------|
| Type: Wet Pond      Level: 2      Shallow Water Area: 5,049 sf      Shoreline Fringe: 4,707 sf |                             |                       |                                  |                    |            |               |                   |         |           |                |               |
| AQUATIC BENCH                                                                                  | Zone                        | Quantity              | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size              | Spacing | Plant     | Area per Plant | Coverage Area |
|                                                                                                | Shallow Water Area (Zone 2) | 30                    | <i>Acorus calamus</i>            | Sweetflag          | Perimeter  | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 270 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 35                    | <i>Iris versicolor</i>           | Blue Flag Iris     | Emergent   | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 315 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 30                    | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 270 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Panicum virgatum</i>          | Switchgrass        | Perimeter  | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 30                    | <i>Peltandra virginica</i>       | Arrow Arum         | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 270 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Juncus tenuis</i>             | Path Rush          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 35                    | <i>Pontederia cordata</i>        | Pickereel Weed     | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 315 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 20                    | <i>Sagittaria latifolia</i>      | Arrowhead          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 180 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 15                    | <i>Typha latifolia</i>           | Broadleaf Cattail  | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 135 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Scirpus cyperinus</i>         | Woolgrass          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Asclepias incarnata</i>       | Swamp Milkweed     | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 225 sf        |
|                                                                                                | Total Coverage              |                       |                                  |                    |            |               |                   |         |           |                | 2,655 sf      |
| WETLAND POCKET                                                                                 | Zone                        | Quantity              | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size              | Spacing | Plant     | Area per Plant | Coverage Area |
|                                                                                                | Shallow Water Area (Zone 2) | 28                    | <i>Acorus calamus</i>            | Sweetflag          | Perimeter  | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 252 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 15                    | <i>Andropogon virginicus</i>     | Broomsedge         | Perimeter  | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 135 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 30                    | <i>Iris versicolor</i>           | Blue Flag Iris     | Emergent   | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 270 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Panicum virgatum</i>          | Switchgrass        | Perimeter  | 3 in.         | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Peltandra virginica</i>       | Arrow Arum         | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 15                    | <i>Juncus tenuis</i>             | Path Rush          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 135 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 25                    | <i>Pontederia cordata</i>        | Pickereel Weed     | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 225 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 15                    | <i>Sagittaria latifolia</i>      | Arrowhead          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 135 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 15                    | <i>Typha latifolia</i>           | Broadleaf Cattail  | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 135 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 18                    | <i>Scirpus cyperinus</i>         | Woolgrass          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 162 sf        |
|                                                                                                | Shallow Water Area (Zone 2) | 30                    | <i>Asclepias incarnata</i>       | Swamp Milkweed     | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Cont.     | 9 sf           | 270 sf        |
| Total Coverage                                                                                 |                             |                       |                                  |                    |            |               |                   |         |           | 2,394 sf       |               |
| SAFETY BENCH                                                                                   | Zone                        | Quantity              | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size              | Spacing | Plant     | Area per Plant | Coverage Area |
|                                                                                                | Shoreline Fringe (Zone 3)   | 38                    | <i>Acorus calamus</i>            | Sweetflag          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 342 sf        |
|                                                                                                | Shoreline Fringe (Zone 3)   | 35                    | <i>Carex pensylvanica</i>        | Pennsylvania Sedge | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 315 sf        |
|                                                                                                | Shoreline Fringe (Zone 3)   | 30                    | <i>Cephalanthus occidentalis</i> | Buttonbush         | Dec. Shrub | N/A           | 15-18 in.         | 5' o.c. | Cont.     | 36 sf          | 1,080 sf      |
|                                                                                                | Shoreline Fringe (Zone 3)   | 35                    | <i>Hibiscus moscheutos</i>       | Marsh Hibiscus     | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 2' o.c. | Cont.     | 9 sf           | 315 sf        |
|                                                                                                | Shoreline Fringe (Zone 3)   | 30                    | <i>Pontederia cordata</i>        | Pickereel Weed     | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 270 sf        |
|                                                                                                | Shoreline Fringe (Zone 3)   | 30                    | <i>Aronia arbutifolia</i>        | Red Chokeberry     | Dec. Shrub | N/A           | 15-18 in.         | 4' o.c. | Cont.     | 36 sf          | 1,080 sf      |
|                                                                                                | Shoreline Fringe (Zone 3)   | 25                    | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Mn) | 3' o.c. | Bare Root | 9 sf           | 225 sf        |
| Shoreline Fringe (Zone 3)                                                                      | 30                          | <i>Viburnum nudum</i> | Possomhaw Viburnum               | Dec. Shrub         | N/A        | 15-18 in.     | 4' o.c.           | Cont.   | 36 sf     | 1,080 sf       |               |
| Total Coverage                                                                                 |                             |                       |                                  |                    |            |               |                   |         |           | 4,707 sf       |               |



## 1 BMP PLANTING

Not To Scale



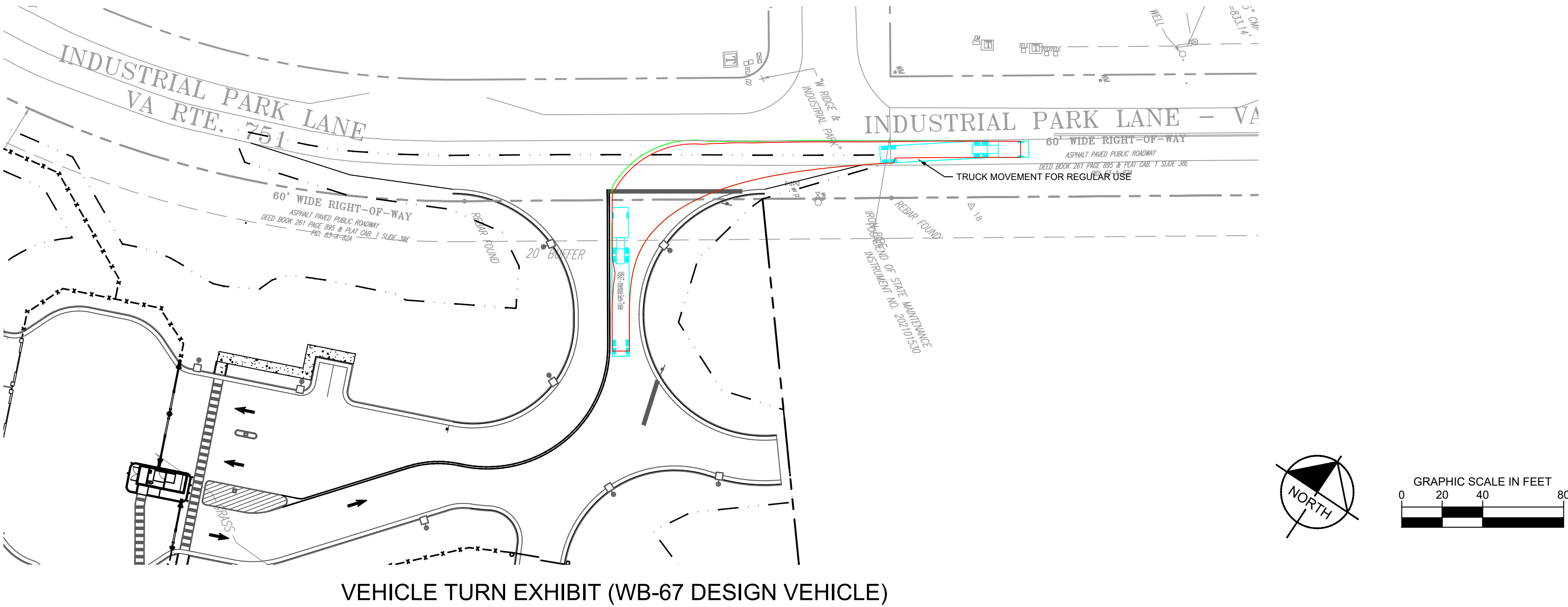
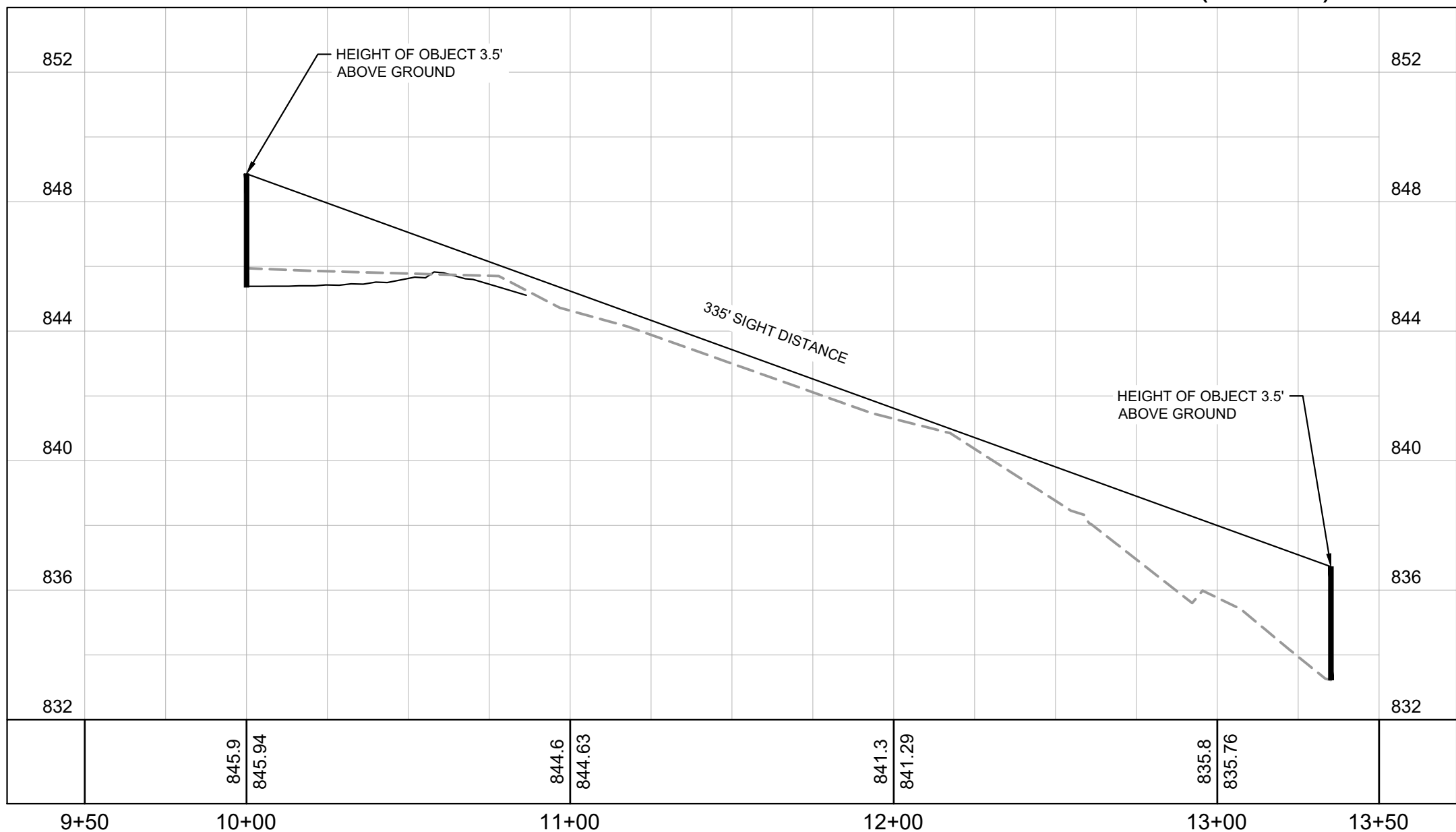
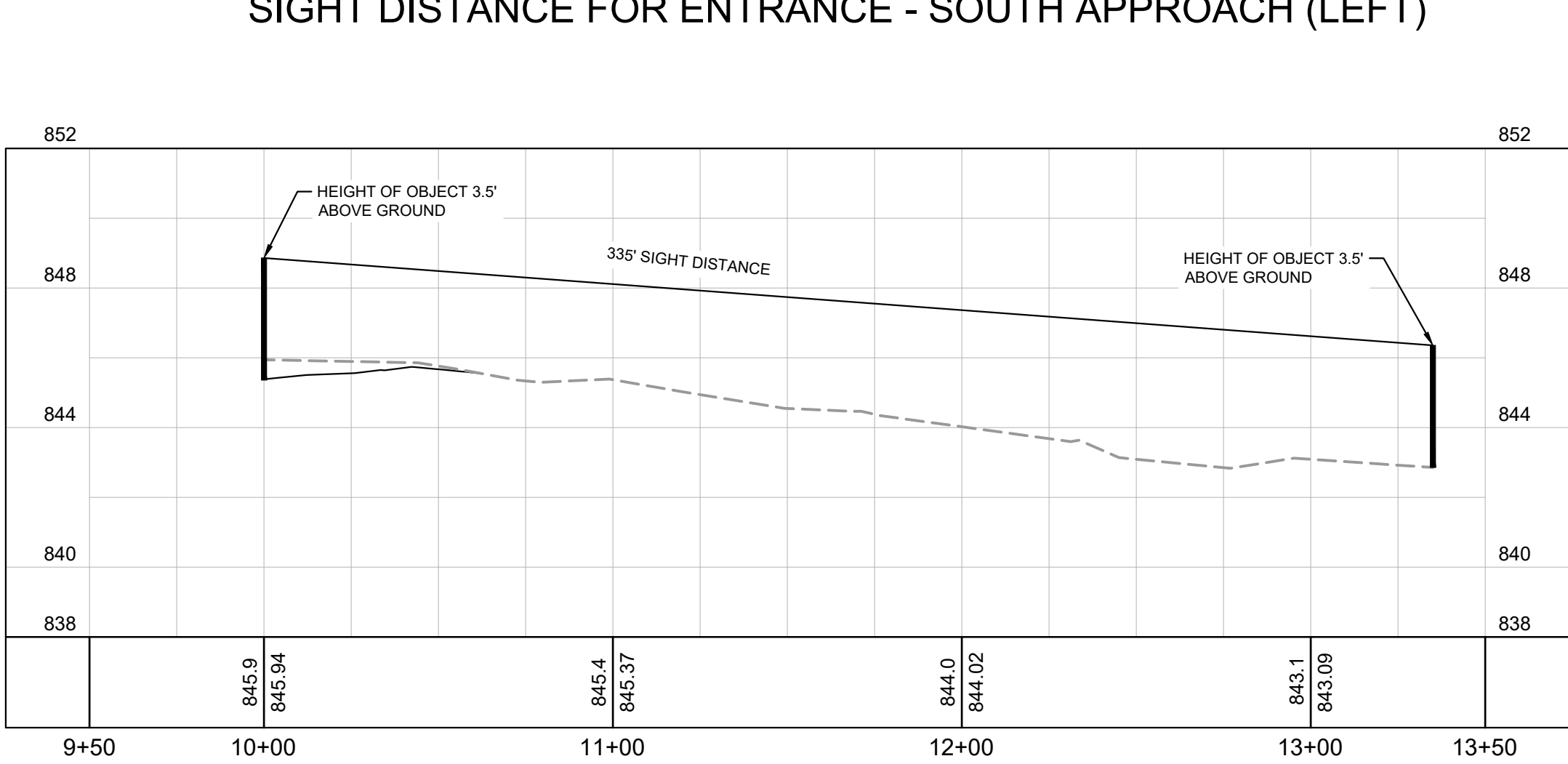
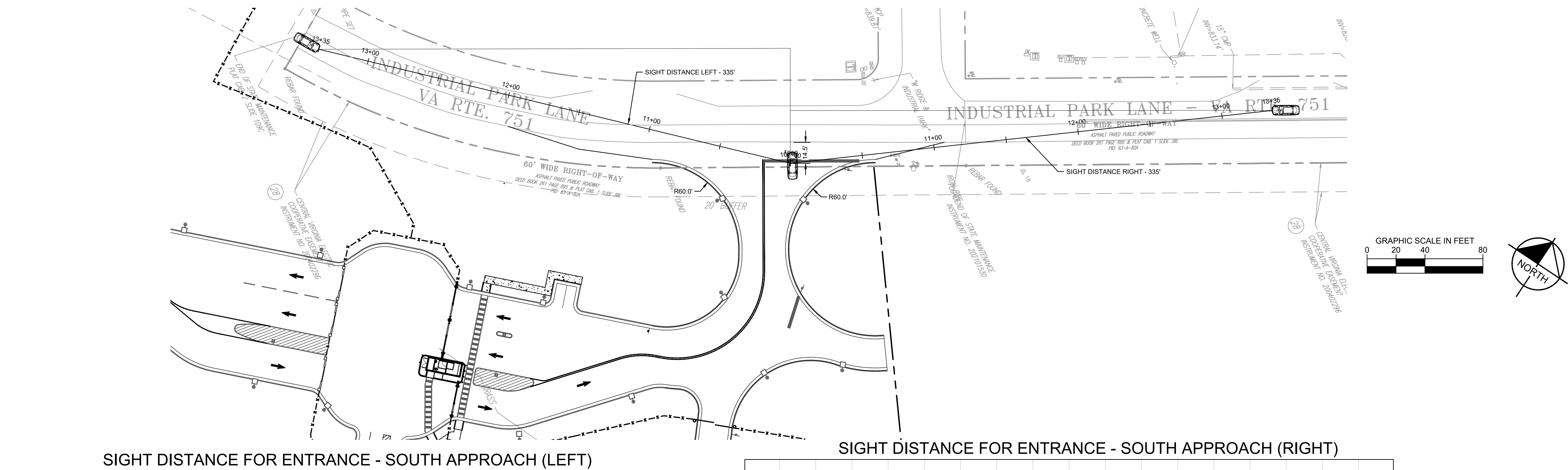
## 2 BUFFER PLANTING (TYP.)

NTS

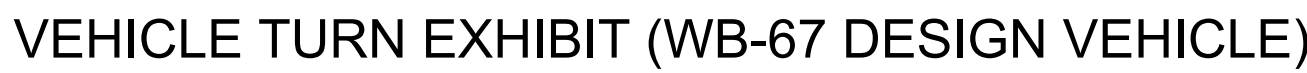
| POND C VEGETATION SCHEDULE  |          |                                  |                    |            |               |                     |         |           |                |                            |  |
|-----------------------------|----------|----------------------------------|--------------------|------------|---------------|---------------------|---------|-----------|----------------|----------------------------|--|
| Type: Wet Pond              |          |                                  |                    | Level: 2   |               | Shallow Water Area: |         | 9,513 sf  |                | Shoreline Fringe: 6,075 sf |  |
| Zone                        | Quantity | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size                | Spacing | Plant     | Area per Plant | Coverage Area              |  |
| Shallow Water Area (Zone 2) | 38       | <i>Acorus calamus</i>            | Sweetflag          | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 342 sf                     |  |
| Shallow Water Area (Zone 2) | 55       | <i>Iris versicolor</i>           | Blue Flag Iris     | Emergent   | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 495 sf                     |  |
| Shallow Water Area (Zone 2) | 40       | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 360 sf                     |  |
| Shallow Water Area (Zone 2) | 40       | <i>Panicum virgatum</i>          | Switchgrass        | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 360 sf                     |  |
| Shallow Water Area (Zone 2) | 40       | <i>Peltandra virginica</i>       | Arrow Arum         | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 360 sf                     |  |
| Shallow Water Area (Zone 2) | 50       | <i>Juncus tenuis</i>             | Path Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 450 sf                     |  |
| Shallow Water Area (Zone 2) | 50       | <i>Pontederia cordata</i>        | Pickernel Weed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 450 sf                     |  |
| Shallow Water Area (Zone 2) | 50       | <i>Sagittaria latifolia</i>      | Arrowhead          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 450 sf                     |  |
| Shallow Water Area (Zone 2) | 35       | <i>Typha latifolia</i>           | Broadleaf Cattail  | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 315 sf                     |  |
| Shallow Water Area (Zone 2) | 40       | <i>Scirpus cyperinus</i>         | Woolgrass          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 360 sf                     |  |
| Shallow Water Area (Zone 2) | 40       | <i>Asclepias incarnata</i>       | Swamp Milkweed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 360 sf                     |  |
| Total Coverage              |          |                                  |                    |            |               |                     |         |           | 4,302 sf       |                            |  |
| Zone                        | Quantity | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size                | Spacing | Plant     | Area per Plant | Coverage Area              |  |
| Shallow Water Area (Zone 2) | 45       | <i>Acorus calamus</i>            | Sweetflag          | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 405 sf                     |  |
| Shallow Water Area (Zone 2) | 40       | <i>Andropogon virginicus</i>     | Broomsedge         | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 360 sf                     |  |
| Shallow Water Area (Zone 2) | 55       | <i>Iris versicolor</i>           | Blue Flag Iris     | Emergent   | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 495 sf                     |  |
| Shallow Water Area (Zone 2) | 55       | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 495 sf                     |  |
| Shallow Water Area (Zone 2) | 35       | <i>Panicum virgatum</i>          | Switchgrass        | Perimeter  | 3 in.         | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 315 sf                     |  |
| Shallow Water Area (Zone 2) | 48       | <i>Peltandra virginica</i>       | Arrow Arum         | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 432 sf                     |  |
| Shallow Water Area (Zone 2) | 56       | <i>Juncus tenuis</i>             | Path Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 504 sf                     |  |
| Shallow Water Area (Zone 2) | 45       | <i>Pontederia cordata</i>        | Pickernel Weed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 405 sf                     |  |
| Shallow Water Area (Zone 2) | 45       | <i>Sagittaria latifolia</i>      | Arrowhead          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 405 sf                     |  |
| Shallow Water Area (Zone 2) | 35       | <i>Typha latifolia</i>           | Broadleaf Cattail  | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 315 sf                     |  |
| Shallow Water Area (Zone 2) | 55       | <i>Scirpus cyperinus</i>         | Woolgrass          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 495 sf                     |  |
| Shallow Water Area (Zone 2) | 65       | <i>Asclepias incarnata</i>       | Swamp Milkweed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Cont.     | 9 sf           | 585 sf                     |  |
| Total Coverage              |          |                                  |                    |            |               |                     |         |           | 5,211 sf       |                            |  |
| Zone                        | Quantity | Botanical Name                   | Common Name        | Form       | Maximum Depth | Size                | Spacing | Plant     | Area per Plant | Coverage Area              |  |
| Shoreline Fringe (Zone 3)   | 40       | <i>Acorus calamus</i>            | Sweetflag          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 360 sf                     |  |
| Shoreline Fringe (Zone 3)   | 45       | <i>Carex pensylvanica</i>        | Pennsylvania Sedge | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 405 sf                     |  |
| Shoreline Fringe (Zone 3)   | 45       | <i>Cephalanthus occidentalis</i> | Buttonbush         | Dec. Shrub | N/A           | 15-18 in.           | 5' o.c. | Cont.     | 36 sf          | 1,620 sf                   |  |
| Shoreline Fringe (Zone 3)   | 35       | <i>Hibiscus moscheutos</i>       | Marsh Hibiscus     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 2' o.c. | Cont.     | 9 sf           | 315 sf                     |  |
| Shoreline Fringe (Zone 3)   | 45       | <i>Pontederia cordata</i>        | Pickernel Weed     | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 405 sf                     |  |
| Shoreline Fringe (Zone 3)   | 40       | <i>Aronia arbutifolia</i>        | Red Chokeberry     | Dec. Shrub | N/A           | 15-18 in.           | 4' o.c. | Cont.     | 36 sf          | 1,440 sf                   |  |
| Shoreline Fringe (Zone 3)   | 30       | <i>Juncus effusus</i>            | Soft Rush          | Emergent   | 12 in.        | Sprig (4 Stem Min)  | 3' o.c. | Bare Root | 9 sf           | 270 sf                     |  |
| Shoreline Fringe (Zone 3)   | 35       | <i>Viburnum nudum</i>            | Possumhaw Viburnum | Dec. Shrub | N/A           | 15-18 in.           | 4' o.c. | Cont.     | 36 sf          | 1,260 sf                   |  |
| Total Coverage              |          |                                  |                    |            |               |                     |         |           | 6,075 sf       |                            |  |



Plotted By:McCrory, Stephen Sheet Set:Kha Layout:CR-101 SIGHT DISTANCES AND TRUCK TURNS November 08, 2025 04:56:18pm  
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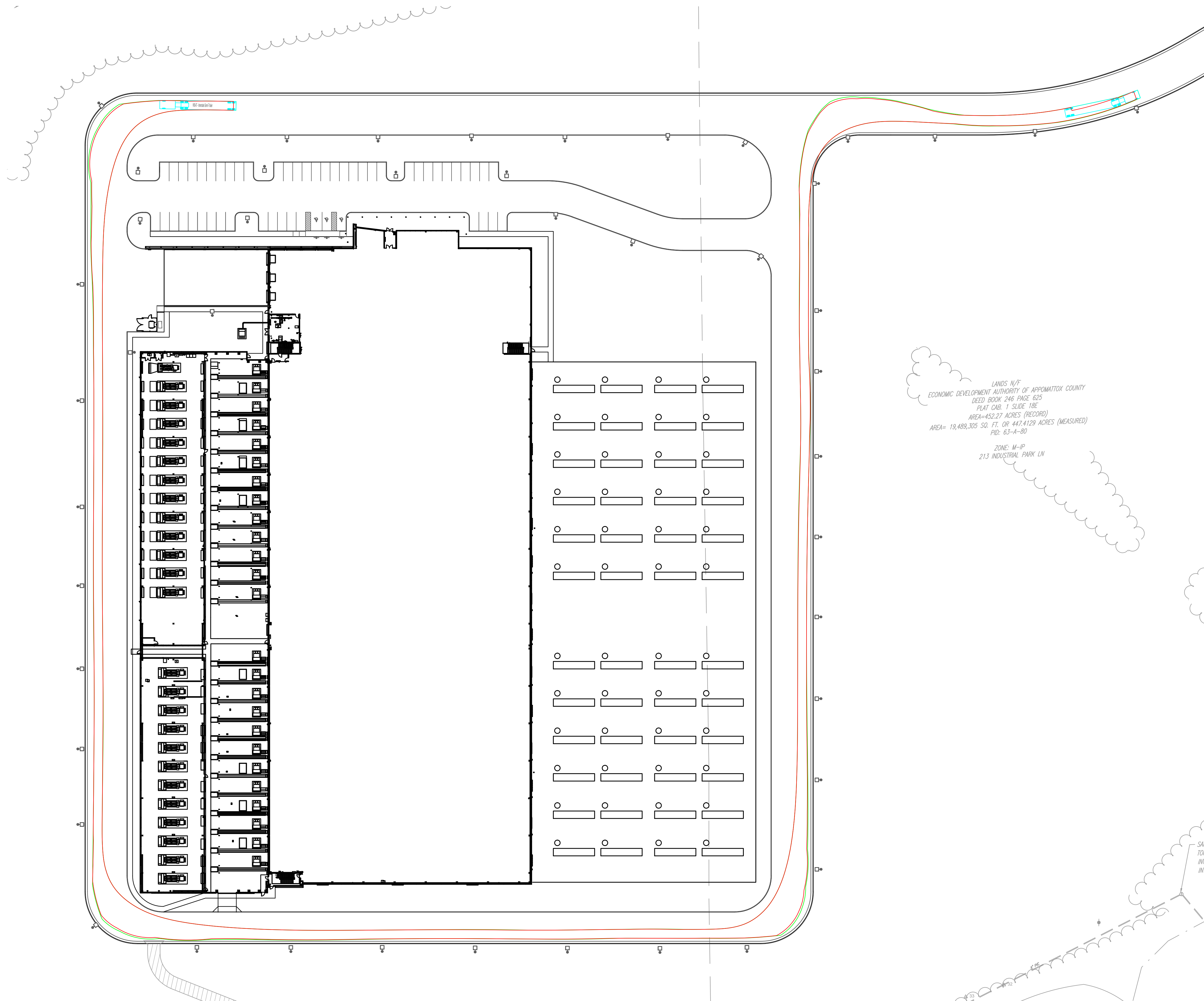




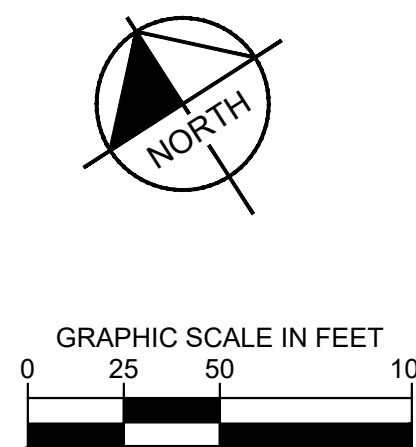




Plotted By: McCray, Stephen Sheet Set: Kha Layout: CR-103 SIGHT DISTANCES AND TRUCK TURNS November 05, 2025 04:56:28pm



VEHICLE TURN EXHIBIT (WB-67 DESIGN VEHICLE)

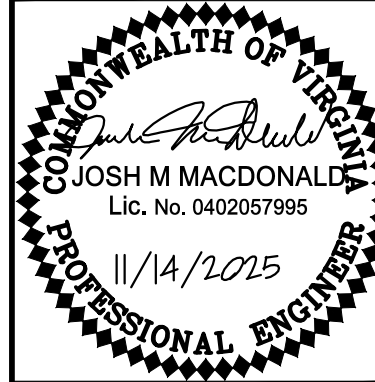


# PROJECT HERCULES

APPOMATTOX COUNTY

## SIGHT DISTANCES AND TRUCK TURNS

|                          |                    |                |                 |              |                |
|--------------------------|--------------------|----------------|-----------------|--------------|----------------|
| KHA PROJECT<br>113706001 | DATE<br>11/14/2025 | SCALE AS SHOWN | DESIGNED BY STM | DRAWN BY STM | CHECKED BY JMM |
|--------------------------|--------------------|----------------|-----------------|--------------|----------------|



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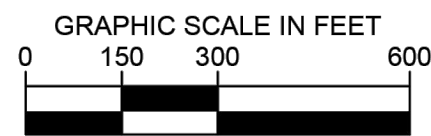
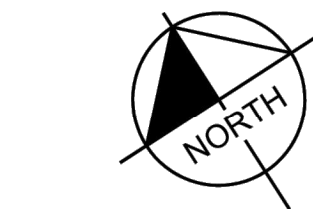
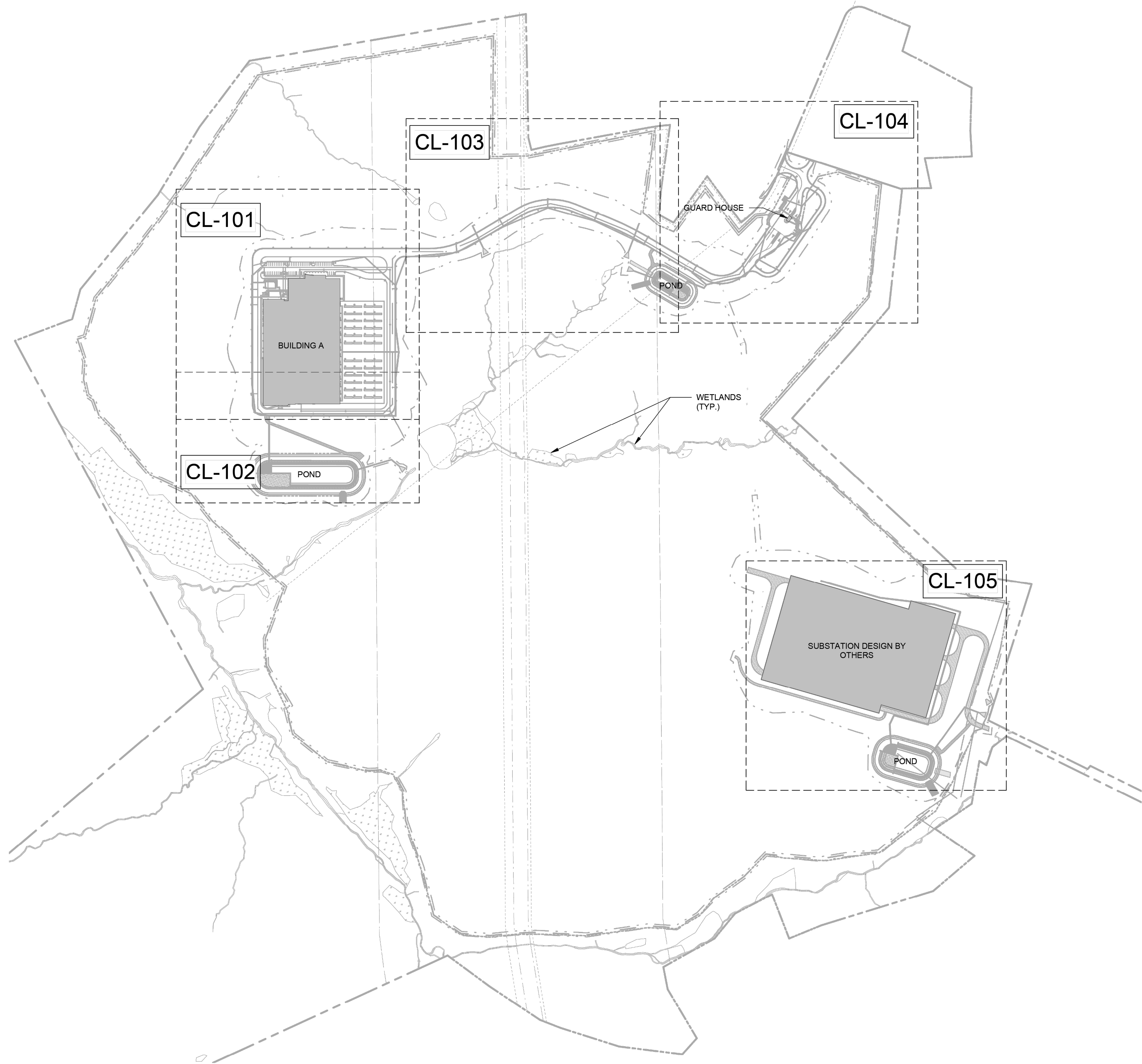




1

SITE LIGHTING PLAN - OVERALL

1" = 300'-0"



### GENERAL NOTES

A REFERENCE CIVIL PLANS FOR FINAL STATION LOCATIONS OF DEVICES. ELECTRICAL PLANS SHOW A DIAGRAMMATIC LOCATION UNLESS SPECIFICALLY DIMENSIONED ON PLANS. COORDINATE FINAL STATION LOCATION OF ELECTRICAL DEVICES WITH OTHER TRADES. CONTRACTOR TO PROVIDE FINAL DETAILED SITE PLAN WITH FINAL LOCATIONS INDICATED FOR APPROVAL.

OVERALL LIGHTING  
PLAN

PROJECT HERCULES

SHEET NUMBER  
CL-100

APPOMATTOX COUNTY

VA



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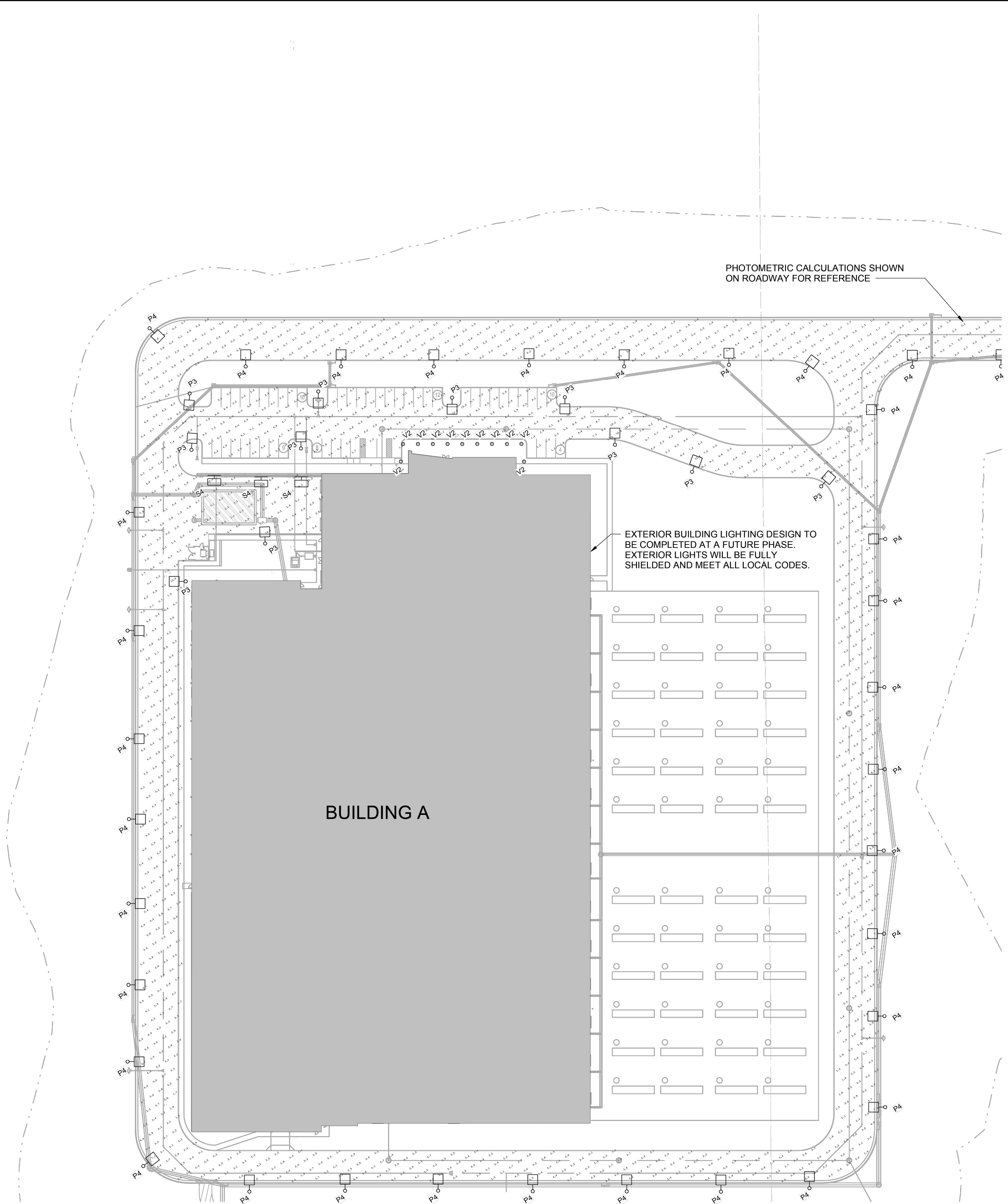


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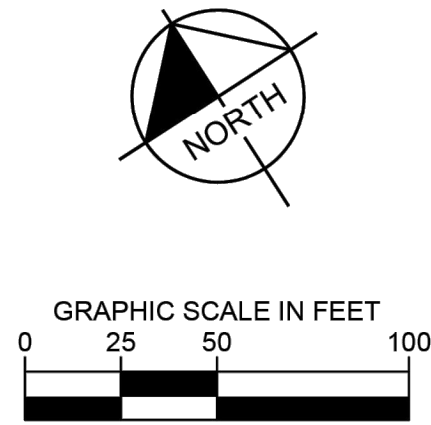
1

SITE LIGHTING PLAN

1" = 50'-0"



| GENERAL NOTES |                                                                                                                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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PROJECT HERCULES

APPOMATTOX COUNTY

VA

LIGHTING PLAN

|                |            |
|----------------|------------|
| KHA PROJECT    | 113706001  |
| DATE           | 11/14/2025 |
| SCALE AS SHOWN |            |
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| DRAWN BY       | OG         |
| CHECKED BY     | JB         |

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COMMONWEALTH OF VIRGINIA

JASON R. BIRBAUGH  
Lic. No. 052008  
11/14/25  
PROFESSIONAL ENGINEER

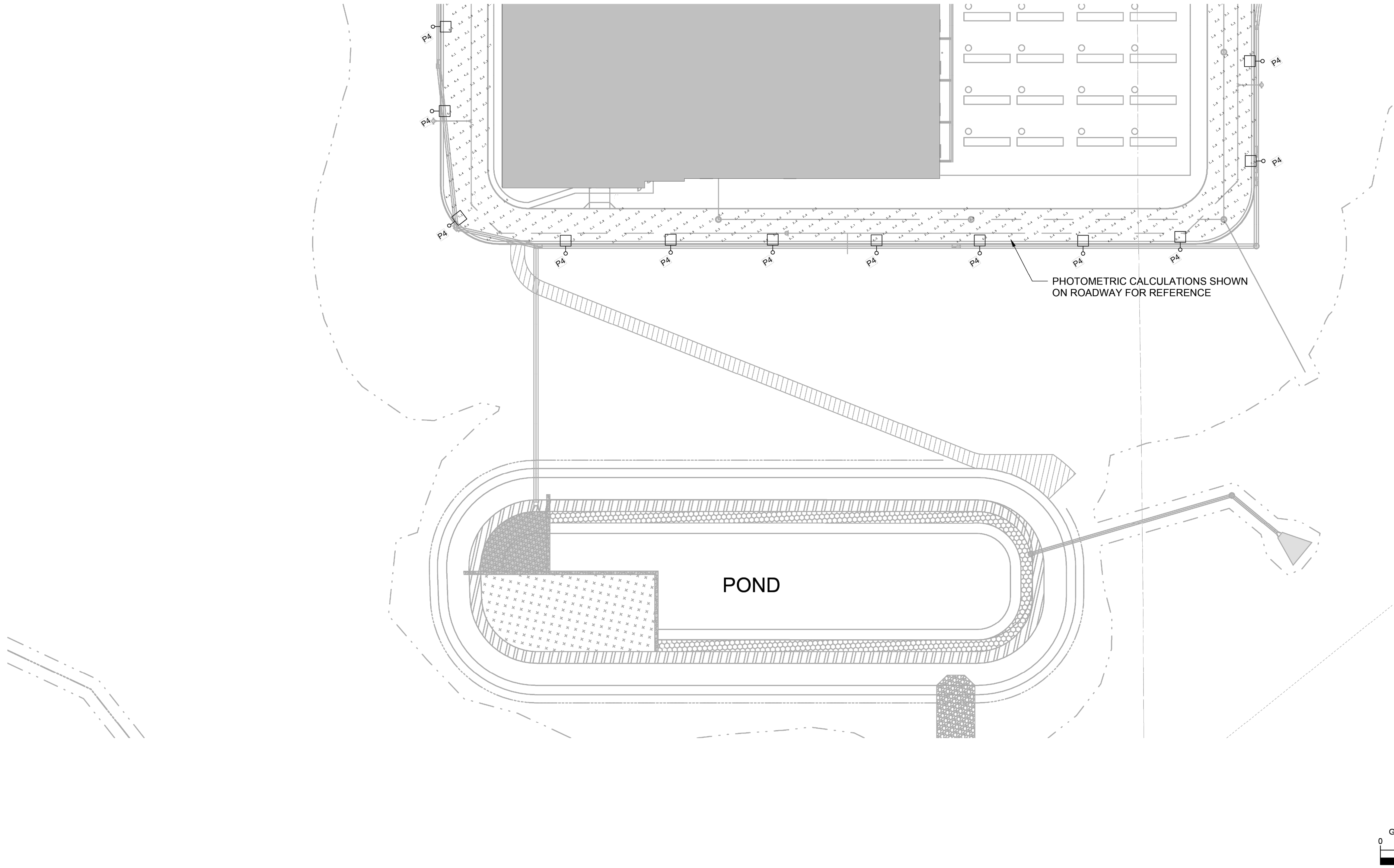
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1

SITE LIGHTING PLAN

1" = 50'-0"



| GENERAL NOTES |                                                                                                                                                                                                                                                                                                                              |
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PROJECT HERCULES

APPOMATTOX COUNTY

VA

LIGHTING PLAN

KHA PROJECT 113708001

DATE 11/14/2025

SCALE AS SHOWN

DESIGNED BY RF

DRAWN BY OG

CHECKED BY JB

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COMMONWEALTH OF VIRGINIA

JASON R. BURBAUGH

Lic. No. 052008

11/14/25

PROFESSIONAL ENGINEER

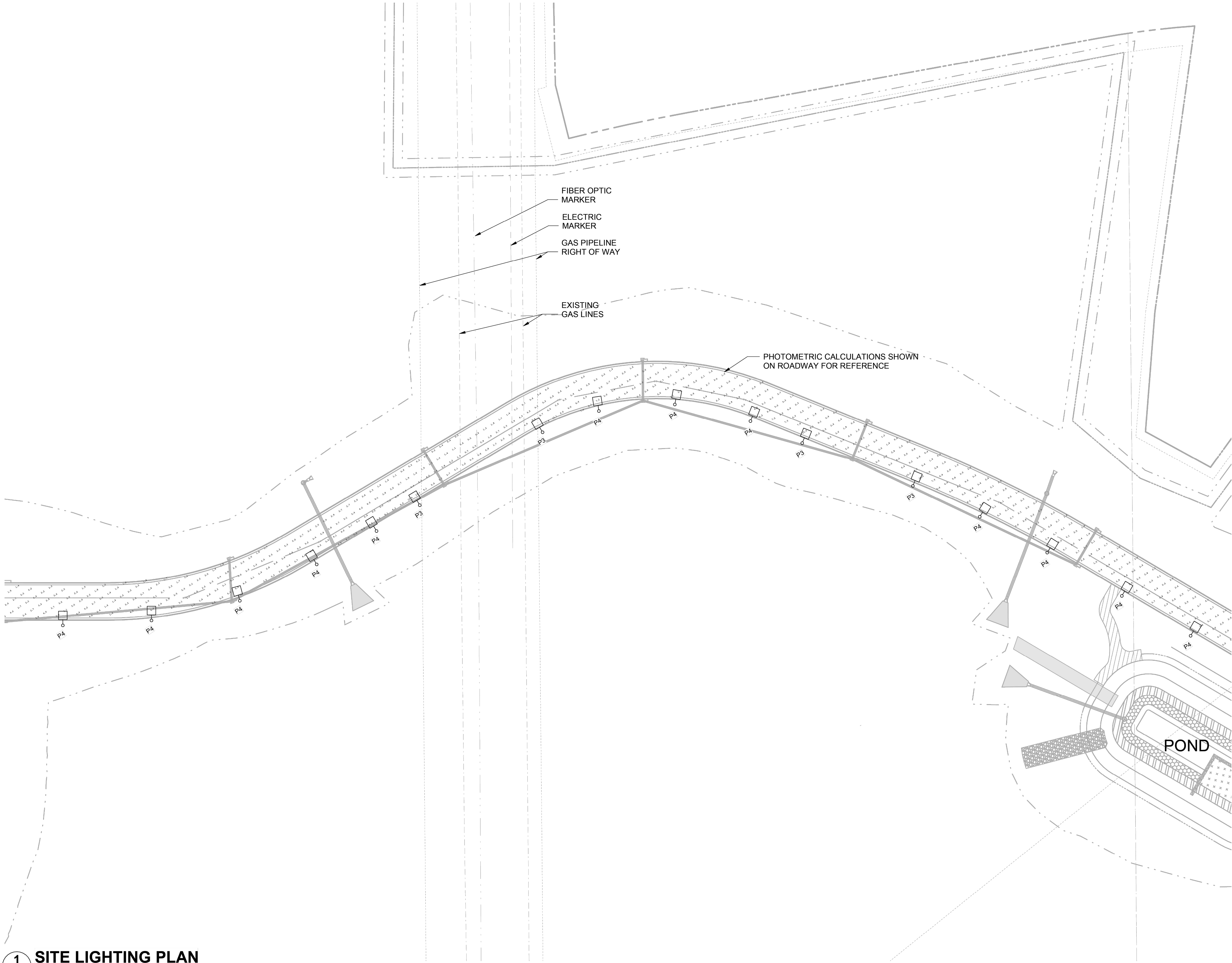
JACOBS

SHEET NUMBER

CL-102



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## GENERAL NOTES

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| CHECKED BY     | JB         |

## LIGHTING PLAN

## PROJECT HERCULES

APPOMATTOX COUNTY

VA

SHEET NUMBER  
CL-103

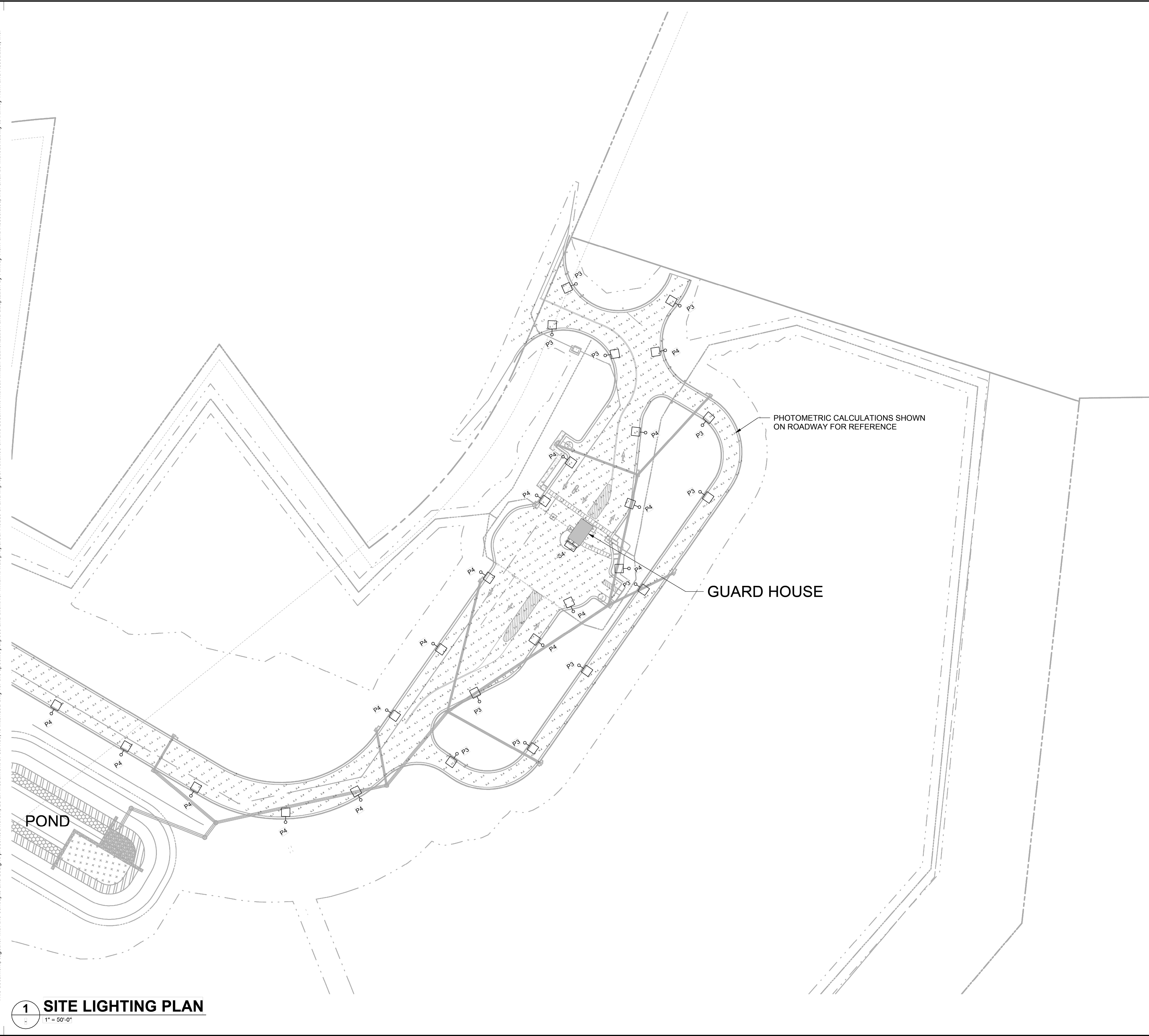
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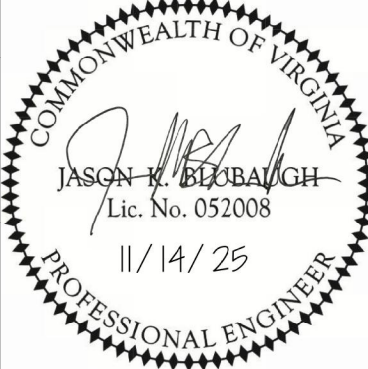
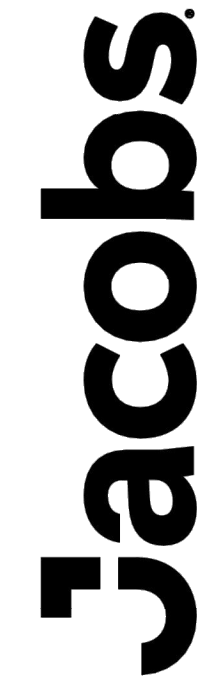


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**1** **SITE LIGHTING PLAN**  
1" = 50'-0"

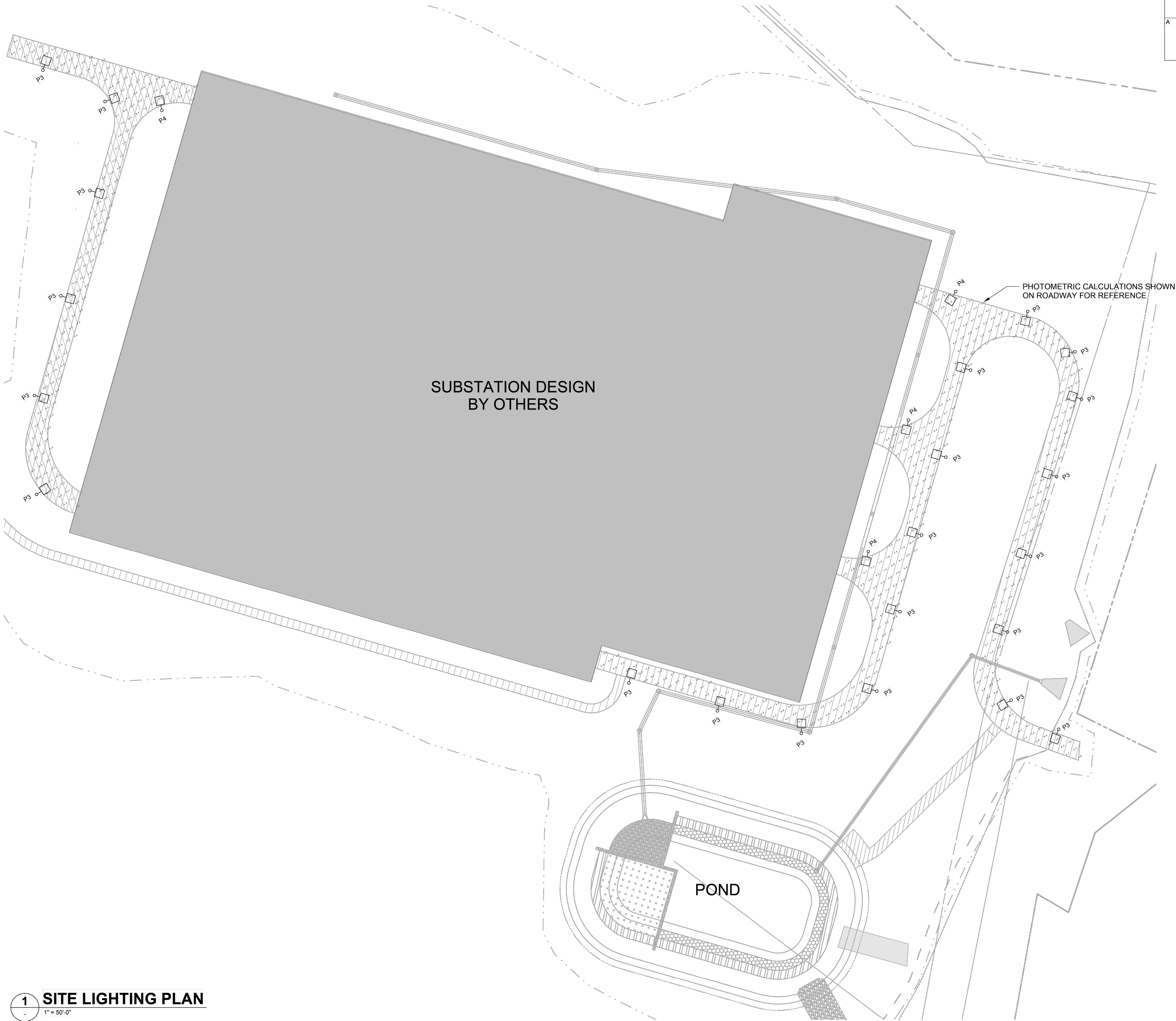
| GENERAL NOTES |                                                                                                                                                                                                                                                                                                                              |
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|                                                   |            |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |
|---------------------------------------------------|------------|-------------------------|----------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|------|------------|----------------|--|-------------|----|----------|----|------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>PROJECT HERCULES</b><br>SHEET NUMBER<br>CL-104 |            | APPOMATTOX COUNTY<br>VA | <b>LIGHTING PLAN</b> |  | <table><tr><td>KHA PROJECT</td><td>113708001</td></tr><tr><td>DATE</td><td>11/14/2025</td></tr><tr><td>SCALE AS SHOWN</td><td></td></tr><tr><td>DESIGNED BY</td><td>RF</td></tr><tr><td>DRAWN BY</td><td>OG</td></tr><tr><td>CHECKED BY</td><td>JB</td></tr></table> | KHA PROJECT | 113708001 | DATE | 11/14/2025 | SCALE AS SHOWN |  | DESIGNED BY | RF | DRAWN BY | OG | CHECKED BY | JB | <br><b>Kimley»Horn</b><br>© 2025 KIMLEY-HORN AND ASSOCIATES, INC.<br>6806 PARAGON PLACE, SUITE 310, RICHMOND, VA 23230<br>PHONE: 804-673-3882<br>WWW.KIMLEY-HORN.COM |  |
| KHA PROJECT                                       | 113708001  |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |
| DATE                                              | 11/14/2025 |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |
| SCALE AS SHOWN                                    |            |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |
| DESIGNED BY                                       | RF         |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |
| DRAWN BY                                          | OG         |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |
| CHECKED BY                                        | JB         |                         |                      |  |                                                                                                                                                                                                                                                                      |             |           |      |            |                |  |             |    |          |    |            |    |                                                                                                                                                                                                                                                          |                                                                                    |



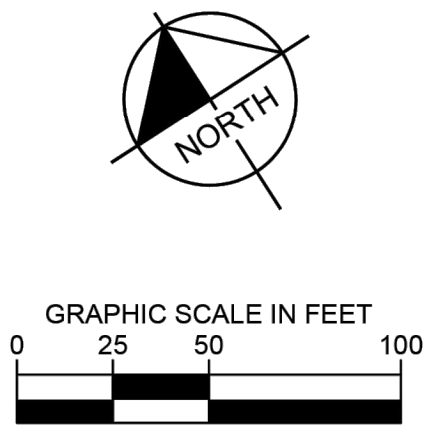
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1 SITE LIGHTING PLAN  
1" = 50'-0"



GENERAL NOTES

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LIGHTING PLAN

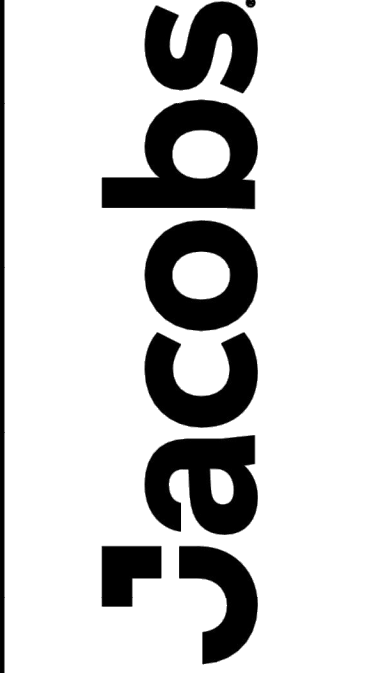
PROJECT HERCULES  
APPOMATTOX COUNTY  
VA

SHEET NUMBER  
CL-105



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| FIXTURE SCHEDULE |                                  |      |            |        |            |          |         |          |              |                                                                        |                   |                            |
|------------------|----------------------------------|------|------------|--------|------------|----------|---------|----------|--------------|------------------------------------------------------------------------|-------------------|----------------------------|
| TYPE MARK        | DESCRIPTION                      | LAMP | COLOR TEMP | LUMENS | BUG RATING | VOLTAGE  | WATTAGE | MOUNTING | MANUFACTURER | FIXTURE NAME                                                           | LOCATION          | COMMENTS                   |
| P4               | CIRCULAR POLE MOUNTED SITE LIGHT | LED  | 5000K      | 20684  | B3-U0-G3   | 120-277V | 213     | POLE     | NLS LIGHTING | ORX-3-AM-T4-128L-53-50K7-UNV-ASA-GPH<br>RSAP-20-4S-120-9BC-SGL-GPH-136 | ROADWAY/EXTERIOR  | PROVIDE 20' POLE           |
| P3               | CIRCULAR POLE MOUNTED SITE LIGHT | LED  | 5000K      | 22267  | B3-U0-G3   | 120-277V | 211     | POLE     | NLS LIGHTING | ORX-3-AM-T3-128L-7-50K7-UNV-ASA-GPH<br>RSAP-20-4S-120-9BC-SGL-GPH-136  | ROADWAY/EXTERIOR  | PROVIDE 20' POLE           |
| S4               | CIRCULAR EXTERIOR WALL PACK      | LED  | 5000K      | 9549   | B2-U0-G2   | 120-277V | 87      | WALL     | NLS LIGHTING | ORX-W-T4-32L-85-50K7-UNV-WM-GPH                                        | BUILDING EXTERIOR | MOUNTING HEIGHT 10'-0" AFF |
| V2               | CIRCULAR LED EXTERIOR BOLLARD    | LED  | 5000K      | 1898   | B1-U0-G1   | 120-277V | 18      | SURFACE  | NLS LIGHTING | ORX-B-42-T2-16L-40-50K7-UNV-AB-GPH                                     | WALKWAYS          |                            |

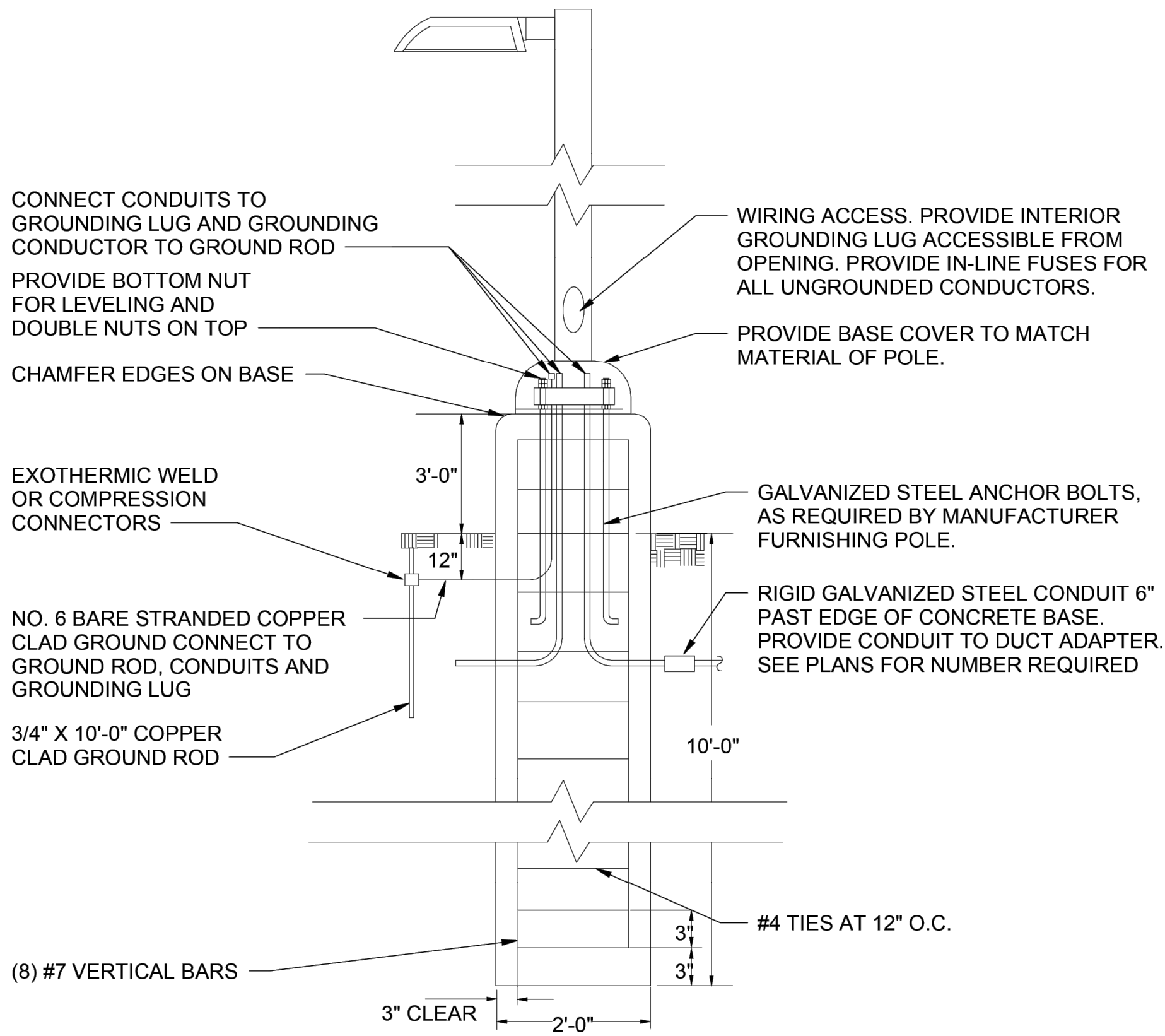
| LIGHTING CONTROL SEQUENCE OF OPERATIONS |                  |                |                                           |                                 |                                     |                              |                                   |                                 |                    |                                   |               |             |                             |
|-----------------------------------------|------------------|----------------|-------------------------------------------|---------------------------------|-------------------------------------|------------------------------|-----------------------------------|---------------------------------|--------------------|-----------------------------------|---------------|-------------|-----------------------------|
| SPACE TYPE                              | OCCUPANCY SENSOR | VACANCY SENSOR | MANUAL ON/OFF + CONTINUOUS DIMMING SWITCH | ONE BUTTON MANUAL SWITCH (100%) | TWO BUTTON MANUAL SWITCH (50%-100%) | CONTINUOUSLY DIMMABLE LIGHTS | STEP DIMMABLE LIGHTS (50% / 100%) | PHOTOSENSOR / PHOTOCELL CONTROL | TIME CLOCK CONTROL | TIME CLOCK MANUAL OVERRIDE BUTTON | 0-10V DIMMING | KEYED NOTES | SEQUENCE OF OPERATION NOTES |
| EXTERIOR LIGHTING                       |                  |                |                                           |                                 |                                     |                              |                                   | X                               | X                  | X                                 |               | 1           | B                           |
| PARKING LOTS                            | X                |                |                                           |                                 |                                     |                              | X                                 | X                               | X                  | X                                 |               |             | A                           |

SEQUENCE OF OPERATION NOTES

- A. LIGHTS AUTOMATICALLY TURN ON TO 100% FROM SUNSET TO SUNRISE. LIGHTS AUTOMATICALLY TURN OFF FROM SUNRISE TO SUNSET. LIGHTS AUTOMATICALLY REDUCE LIGHTING LEVELS BY 50% AFTER 15 MINUTES OF WHEN SPACE BECOMES VACANT.
- B. LIGHTS AUTOMATICALLY TURN OFF WHEN DAYLIGHT IS PRESENT AND SATISFIES THE LIGHTING NEEDS.

KEYED NOTES

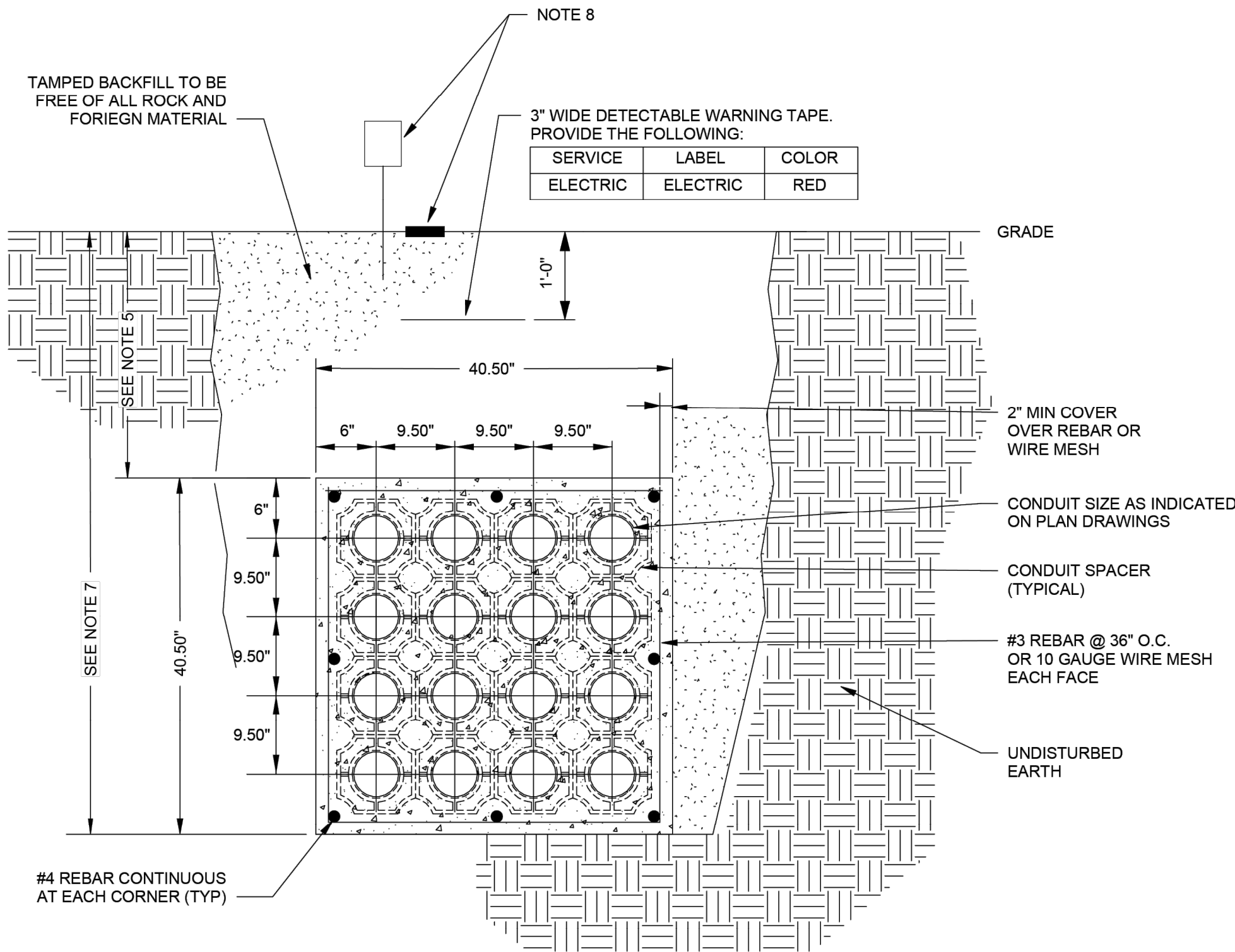
1. EXTERIOR LIGHTS CONTROLLED BY LIGHTING RELAY PANEL WITH INTEGRAL TIMECLOCK AND MASTER OVERRIDE SWITCH. PROVIDE PHOTOCELL ON GUARD HOUSE ROOF FACING NORTH AND ASTRONOMICAL TIME CLOCK WITH MAINTENANCE BYPASS.



2 SITE LIGHT POLE BASE  
NTS

GENERAL NOTES - LIGHT FIXTURE SCHEDULE

- LIGHTING FIXTURES, INSTALLATION, SUPPORT, WIRING AND RELATED WORK SHALL COMPLY WITH GENERAL NOTES, FIXTURE SCHEDULE, LAMP/BALLAST REQUIREMENT TABLES, FIXTURE DETAILS, SPECIFICATIONS AND ALL CONTRACT DRAWINGS.
- PROVIDE ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION AND COORDINATE WITH WORK BY OTHER TRADES. PROVIDE ALL REQUIRED MOUNTING HARDWARE, SUPPORTS, ACCESSORIES, AND TRIM REQUIRED FOR A COMPLETE INSTALLATION. COORDINATE FIXTURE MOUNTING WITH CEILING AND WALL CONSTRUCTION WHERE INSTALLED.
- FIXTURES SHALL BE CBM APPROVED, LISTED AND LABELED BY ETL OR UL FOR DRY, DAMP, WET OR HAZARDOUS/CLASSIFIED LOCATIONS AS APPROPRIATE FOR THE INSTALLATION, UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED OR SPECIFIED IN FIXTURE SCHEDULE.
- THE MANUFACTURERS AND MODELS LISTED ON THE LIGHTING FIXTURE SCHEDULE ARE LISTED TO INDICATE THE OVERALL LEVEL OF QUALITY REQUIRED, AND LISTING OF A MANUFACTURER OR MODEL DOES NOT AMEND OR SUPERCEDE LIGHTING FIXTURE REQUIREMENTS SPECIFIED OR INDICATE. LIGHTING FIXTURES SHALL COMPLY WITH ALL DRAWING AND SPECIFICATION REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- FOR THE FIXTURE TYPES PROPOSED BY THE CONTRACTOR THAT ARE NOT LISTING AS "BASIS OF DESIGN", SUBMIT COMPLETE COMPUTERIZED POINT-BY-POINT FIXTURE LAYOUT AND ILLUMINATION CALCULATIONS, BASED ON PROPOSED FIXTURE, FIELD CONDITIONS, AND CALCULATION DATA.



NOTES:

- PROVIDE DUCTBANK REINFORCING OR RIGID STEEL CONDUIT WHEREVER DUCTBANK CROSSES UNDER CURRENT AND FUTURE ROADWAYS, PARKING LOTS, WHERE LOCATED IN UNSTABLE SOIL, WITHIN 5 FEET OF BUILDING FOUNDATIONS AND FOOTINGS, AND AS OTHERWISE INDICATED.
- WHERE REINFORCED CONCRETE DUCTBANK IS REQUIRED, PROVIDE REBAR IN EACH CORNER AND ADD AN ADDITIONAL REBAR CENTERED IN BETWEEN EACH ADDITIONAL PAIR OF CONDUITS (TYPICAL FOR EACH OF 4 SIDES).
- CONDUITS IN POWER AND CONTROL DUCTBANKS SHALL BE SCHEDULE 40 PVC.
- PROVIDE 4000PSI CONCRETE WITHIN 3' OF THE FOOTING EDGE FOR ALL DUCTBANKS THAT PASS BELOW A FOUNDATION WALL OR FOOTING.
- MINIMUM BURIAL DEPTH FOR POWER CONDUITS = 2'-0". WHERE DUCTBANKS ARE ROUTED BENEATH A BUILDING SLAB, MINIMUM BURIAL DEPTH SHALL BE PER NEC ARTICLES 300.5 AND 300.50.
- PROVIDE RED CONCRETE DYE FOR ALL EXTERIOR POWER DUCTBANKS.
- DUCTBANK TO BE INSTALLED BELOW FROSTLINE.
- PROVIDE MARKERS ABOVE ALL CONDUITS, LOCATED WITHIN 5 FEET OF ACTUAL ROUTE AND WITH A MAXIMUM OF 300 FEET BETWEEN MARKERS (PROVIDE MARKERS ALONG BENDS AS REQUIRED TO FOLLOW CONDUIT PATH). MARKERS SHALL BE CLEARLY MARKED. PROVIDE ONE OF THE FOLLOWING DEPENDING ON INSTALLATION SURFACE:
  - DIRT: RHINO TRIVIEW 400 UTILITY MARKER OR APPROVED EQUAL
  - CONCRETE OR ASPHALT: ACP CONCRETE GRAPHICS UTILITY MARKER OR APPROVED EQUAL
- DUCTBANK CONFIGURATION AND SPACING IS PENDING FINDINGS OF GEOTECHNICAL SURVEY.

3 4X4-WAY CONCRETE ENCASED DUCTBANK  
NTS

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FIXTURE SCHEDULE  
AND DETAILS

PROJECT HERCULES

SHEET NUMBER  
CL-106

VA

APPOMATTOX COUNTY